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### ARTICLE III.

RESULTS OF OBSERVATION WITH THE ZENITH TELESCOPE OF THE SAYRE OBSERVATORY FROM JANUARY 19, 1894, TO AUGUST 19, 1895.

BY CHARLES L. DOOLITTLE.

Read October 19, 1900.

#### Introduction.

The Sayre Observatory, situated at South Bethlehem, Pennsylvania, owes its existence to the liberality of Robert H. Sayre, at whose expense it was erected and equipped in 1868. The object was primarily that of supplying facilities for the instruction of students of the Lehigh University in practical Astronomy. One of the first tasks undertaken by the author of this paper upon taking charge of the department of Astronomy at that institution in 1875 was a very careful determination of the latitude.

The question of possible variations was one of those had in mind at that time. It was then supposed that if anything of this kind took place of sufficient magnitude to be measurable, the changes would be secular in character, and that later determinations might furnish valuable data for deciding the question whether or not such changes existed. This first determination was not finally completed until 1878.

A re-determination was made in 1885–86, which indicated a change of about 0".4, though the reality of this change was at that time naturally an object of much skepticism.

The work was resumed in 1888, and was continued with some interruptions until the summer of 1895, when my connection with the Lehigh University terminated. The present paper deals with the results obtained from January 19, 1894, to August 19, 1895. Although this is a continuation of work done during previous years, the methods pursued were such as to make this in so far an independent series that it may very properly be presented separately. Moreover, as a re-discussion of the earlier observations and their publication in full constitutes a part of the general plan, they will call for no further consideration here.

The final preparation of this material for publication has been delayed by the circumstance that a preliminary reduction showed it to be very desirable that the star declinations should be determined with a high degree of accuracy and carefully reduced to a

homogeneous system. As but little material for this purpose existed in the case of a considerable number of the stars employed, a complete re-observation of the entire list was kindly undertaken by R. H. Tucker, of the Lick Observatory, and that of individual stars at other places; finally in the spring of 1899 an appropriation by the trustees of the Gould fund provided for the employment of a computer, so that now what for present purposes may be regarded as the final values of the stellar coördinates are available.

In the present series the plan proposed in 1890 by Dr. F. Küstner\* was followed. This consists in the employment of four groups of stars, so arranged that they may be connected by evening observations on one group, accompanied by morning observations on the consecutive one. This furnishes the means of adjusting the results to a homogeneous system, and at the same time, as a kind of by-product, a determination of the constant of aberration independently of variations in the latitude.

In the present case the four groups were distributed as follows:

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Group I 5^h31^m to 7^h23^m 10 pairs.

II 14 1 to 15 51 10 "

III 17 30 to 19 35 9 "

IV 21 29 to 23 52 12 "
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The interval between I and II proved to be somewhat too great, for, although these groups were observed during the long nights of January, February and March, the excessive proportion of unfavorable weather at this season made it somewhat difficult to obtain the desired number of satisfactory observations.

#### The Instrument.

This is a Zenith Telescope by E. & G. W. Blunt, of New York. It is said to have been purchased of the United States Coast Survey in 1868, when the Observatory was first erected. It was then in poor condition, and had probably not been in active service for some time. It was at different times overhauled and repaired, and finally, in 1892, provided by G. Saegmüller, of Washington, with two very fine levels. Though not ranking as a first-class modern instrument, it proved capable, with care and attention in its use, of giving results which are believed to be worthy of entire confidence.

The aperture of the telescope is three inches; focal length, forty-one inches. A diagonal eye-piece was employed, magnifying seventy-five diameters.

#### The Levels.

The two levels above mentioned were designated A and B. Previous experience with levels had shown that in some cases the scale values did not remain constant. Cases of deterioration had also been met with, good tubes in time becoming worthless.

<sup>\*</sup> Astronomische Nachrichten, Bd. 126, No. 3015.

It was therefore determined to examine thoroughly these levels at intervals of three months. As no important changes were found, they afterward received less frequent attention, but the process was always repeated at least twice each year.

In this investigation the ordinary level-trier was employed, consisting of a horizontal bar with a micrometer screw at one end. The proportions in the present case were such that one division of the micrometer head corresponded to an angle of 1" in the inclination of the bar.

The level tubes were placed in position, carefully protected from disturbances of all kinds and allowed to remain for an hour or two in order to allow the temperature of all parts of the apparatus to come to a condition of equilibrium. The bubble was then brought near one end of the tube and the scale reading noted. The screw was next moved forward two divisions and the scale again read, and so on through something more than the entire part of the scale actually used in observation.

The screw is now moved backward and the reading of the scale noted at the same screw readings as before. From one to two minutes are allowed for the bubble to come to rest after moving the screw. If too much time elapses there is danger that changes of temperature or other disturbing causes may vitiate the result.

The process is illustrated by the following record of the determination of the value of A:

1894, April 1,		Micrometer.	Bubble	e.	Mean.	Bu	bble.	Mean.	Thermome-
10.30 A.M.		micrometer.	N.	S.	Mean.	N.	S.	mean.	ter, 56°.4.
rd.	1 2 3 4 5	71 69 67 65 63	3.8 4.8 6.3 8.3 9.8	26.1 27 1 28.6 30.6 32.1	14.95 15.95 17.45 19.45 20.95	3.4 4.6 6.2 7.8 9.4	25.5 26.7 28.3 29.9 31.5	14.45 15.65 17.25 18.85 20.45	<b>9</b>
Backward	6 7 8 9 10 11 12 13 14	61 59 57 55 53 51 49 47 45	11.3 13.0 14.7 16.4 18.2 19.6 21.0 22.7 24.6	33.6 35.3 37.0 38.6 40.5 41.8 43.2 45.0 46.8	22.45 24.15 25.85 27.50 29.35 30.70 32.10 33.85 35.70	10 9 12.7 14.2 15.9 17.7 19.2 20.5 22.8 23.8	33.1 34.9 36.4 38.1 39.9 41.4 42.8 44.5 46.1	22.00 23.80 25.30 27.00 28.80 30.30 31.65 33.40 34.95	Forward.
			One division		10.90 11.55 11.90 11.25 11.15 11.40 11.55 = 11.886 = 1".229			10.85 11.35 11.55 11.45 11.40 11.15 11.279 11.279	

The same values of the levels were not employed throughout the entire latitude series,

but these values were revised from time to time as new material gave promise of improvement.

The values used were as follows:

1894, January 19-April 26,	A 1".280	B 1′′.028
April 30-September 15,	1''.276	1′′.008
October 2-December 6,	1''.292	1′′.008
1894. December 23-1895. August 19.	177.284	1′′.024

#### The Reticle.

This is fitted with three vertical threads and one horizontal. The latter is for the purpose of marking the middle of the field, but it is not required for this. Moreover, it involves the inconvenience that, where the difference of zenith distance is small, one component is found on this thread with surprising frequency, thus interfering seriously with its bisection.

In practice, the stars were bisected at the time of passing each vertical thread. The equatorial intervals of the side threads from the middle one were 13.46 and 13.61.

The correction to the latitude for the interval  $\tau$  is

$$\frac{(15\,\tau)^2}{4}\,\sin\,1^{\prime\prime}\,\tan\,\delta.$$

This is computed for each pair employed and is practically constant for the entire time embraced by the series.

## The Micrometer.

The movable frame carries five threads at intervals of approximately ten revolutions of the screw. There are small pieces of brass near one end of the threads marked with 1, 2, 3, 4 and 5 points respectively, to avoid mistakes in identifying the threads. When the difference of zenith distance is not greater than twenty revolutions, both stars were generally bisected with III; for greater differences II and IV were used to avoid turning the screw through so great a number of revolutions. I and V were not used.

It was necessary to determine carefully the distance between threads II and IV, and as this did not remain constant, the operation must be frequently repeated. After some experimenting, it was found that this could be most satisfactorily done by pointing the telescope toward the sky during daylight and bringing the threads in succession up to the fixed thread before mentioned, moving the screw until the line of light between the two vanished.

In the pages which follow, giving details of the latitude determinations, the column headed  $\delta$  contains this correction where required, combined with a second correction to the micrometer, the explanation of which will be given presently.

The proper value of the micrometer screw has proved a troublesome question, as it has been found to be a variable quantity.  $\delta$  Ursae Minoris and 51 Cephei were observed on twenty-three nights during the progress of the work, one star being taken at eastern elongation, preceded or followed, as the case might be, by the other at western elongation. As the altitude of one would be increasing and that of the other diminishing, the mean result should be practically free from errors due to gradual changes of refraction and others of a like character. A preliminary reduction of the latitude observations showed that no one value of the micrometer screw could harmonize the entire series. Evidently the screw had become worn with long service, and the wearing process was still going on at an appreciable rate. A somewhat roughly determined correction for temperature changes removed a part of the difficulty, but not all.

On July 25, 1894, the micrometer was sent to Stackpole & Brother, of New York, for repairs, including a change in the tension of the springs. This naturally produced a change of value at this point, but it was constant neither before nor after. Finally, the conclusion was reached that the screw value must be deduced from the latitude observations themselves and be treated as a variable quantity.

In order to have this method of procedure worthy of confidence, more precise values of the star places were required than those before employed, hence the final reduction was postponed until these became available.

It was observed that the screw was affected by progressive errors of considerable magnitude. An investigation of this matter had formerly been made by employing a measuring engine designed by Prof. William Harkness, of the United States Naval Observatory; but the results had ceased to be applicable, probably a consequence of the wearing of the screw before referred to. The corrections here used were derived from the above-mentioned transits of  $\delta$  Ursæ Minoris and 51 Cephei.

Let n be any number of revolutions of the screw reckoned from the middle of the scale, the middle in this case being at the twentieth revolution.

Let R be the mean value of one revolution.

If the errors be uniformly progressive, the space S, corresponding to n, will be of the form:

$$S = Rn + \rho n^2$$

For a second reading:

$$S' = Rn' + \rho n'^{2}$$

$$S - S' = R(n - n') + \rho (n^{2} - n'^{2})$$

The transits of the stars in question were always observed for each revolution of the screw from scale readings 33 to 7. The observed times are first corrected for level changes and for curvature of the stars' path. They are then combined by subtracting

33 from 19, 32 from 18, — — —, 21 from 7, thus obtaining a series of values of the time required by the star to pass over the space measured by fourteen revolutions of the screw. The difference between any value and the mean of all is the observed correction on account of  $\rho$ , expressed in seconds of time. This must finally be converted into its equivalent value in terms of revolutions of the screw.

The means of the differences so found are given in the accompanying table, those for 51 Cephei having been reduced to the equivalent in terms of  $\delta$  Ursæ Minoris:

	Micrometer.	$n^2 - n'^2$	Observed Difference.	v.
1 2 3 4 5	19 — 33 18 — 32 17 — 31 16 — 30 15 — 29	- 168 140 112 84 56	* 3.90 3.25 2.55 2.21 1.48	* .27 + .22 + .23 13 09
6 7 8 9 10	$\begin{array}{c} 14 & - & 28 \\ 13 & - & 27 \\ 12 & - & 26 \\ 11 & - & 25 \\ 10 & - & 24 \end{array}$	$\begin{array}{rrr} - & 28 & & & \\ & & 0 & & \\ + & 28 & & \\ + & 56 & & \\ + & 84 & & & \end{array}$	$ \begin{array}{rrrr}  & -1.11 \\  & -0.03 \\  & +0.68 \\  & +1.47 \\  & +2.26 \end{array} $	42 03 + .01 08 18
11 12 13	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$^{f +\ 112}_{\ +\ 140}_{\ \ \ +\ 168}$	+ 2.97 + 3.35 + 3.97	$ \begin{array}{r}19 \\ +.12 \\ +.20 \end{array} $

The "observed difference" above is the observed value of  $\rho$   $(n^2 - n'^2)$ . Therefore we have:

$$\rho = + {}^{s}.02483 = .0004354 R$$

since one revolution R represents the space traversed by the star in  $57^{s}.02$ .

With this value of  $\rho$  we compute the corrections to the micrometer readings which follow. These are expressed in terms of one revolution of the screw:

Micrometer.	Correction.	Micrometer.	Correction.
7 & 33	+ .0736	14 & 26	+ .0157
8 32	$+ .0736\atop .0627$	15 25	.0109
9 31	.0527	16 24	.0070
10 30	.0435	17 23	.0039
11 29	.0353	18 22	.0017
12 28	.0279	19 21	.0004
13 27	.0213	20	.0000

These corrections are applied to the micrometer readings and a preliminary reduction carried out employing an approximate value of the screw, as follows:

From 1894, Jan. 19 to July 25, 
$$R=50^{\prime\prime}$$
,5352 July 25 to Dec. 6, 50.5646 Dec. 6 to end of series, 50.5735

We can now write for each observed latitude an equation of the form

$$\sqrt{\rho}$$
 (  $\Delta \phi - (M - M')$   $\Delta \frac{1}{2}R = n$ ),

where  $\Delta \phi$  and  $\Delta R$  are corrections to the latitude and the assumed screw value, M and M' being the micrometer readings, corrected, of course, for progressive errors.

Fourteen sets of equations were formed for deriving corresponding values of  $\Delta \phi$  and  $\Delta \frac{1}{2}R$ , the aim being to limit each series in respect to time, so that no considerable changes in those quantities need be apprehended.

The following exam	ple will	illustrate	the	process:	,
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Group.	Number.	No. of Obs.	V P	M-M'.	n.	v.
	1 2 3 4 5	10	1 1 1 1	- 15.3	49	— 06 — 20
	2 3	$\begin{array}{c c} 10 \\ 9 \end{array}$	1	$+\   \begin{array}{r} 4.2 \\ -\ 14.2 \end{array}$	$^{+.40}_{57}$	— 20 → 06
	4	11	i	- 3.5	-37	$^{+ 06}_{+ 27}$
I	5	11	1	+ 8.3	+ .32	+ 04
1	6	10	1 1	+ 6.7	+ .30	01
	$\begin{bmatrix} & 6 \\ 7 \\ 8 \\ 9 \end{bmatrix}$	10	1	- 16.1	88	+ 30
	8	10 10	1	$\begin{array}{c c} + & 6.4 \\ - & 5.3 \end{array}$	$+ .42 \\01$	-14 $-16$
	10	9	1 1 1	$\frac{-3.3}{+21.4}$	$\frac{01}{+.88}$	-02
					,	
	11	5	0.7	- 6.4	18	03
	12	5 5 4 3	0.7	- 5.1	<b>— .23</b>	+ 07
	13	4	0.7	$\begin{array}{c c} + & 2.5 \\ - & 2.1 \end{array}$	+.56	+ 43 + 03
	14	3	0.6	- 2.1	08	+ 03
II	15	3	0.6	- 0.3	03	+ 05
	16	3	0.6	22.9	54	- 31
	17	3 3 3 2	0.6	— 11.7	<b>—</b> .35	- 06
	18	3	0.6	+ 20.9	+ .24	+ 60
	19	2	0.5	+ 16.0	+ .64	+ 01

From these equations,

$$\Delta \phi = + .0354$$
 $\Delta \frac{1}{2}R = + .0385$ 

No use is made of  $\Delta \phi$  in what follows.

All observations on one pair during the time embraced have been combined into one equation, the number being indicated in the third column.

The following table gives the results derived from these fourteen sets of equations. The adjusted value of  $\Delta \frac{1}{2}R$  is explained in what follows:

	Date.	Mean Temperature.	Assumed ½R.	Computed $\Delta^{1}_{2}R$ .	√ wt.	Adjusted $\Delta \frac{1}{2}R$ .	v.
1 2 3	1894. Jan. 19-Feb. 16 Feb. 19-Mar. 18 Mar. 19-Apr. 30	23°.3 35.2 47.3	25.2676	$\begin{array}{l} + .0385 \\ + .0382 \\ + .0351 \end{array}$	1. 1.0 0.7	+.0395 $+.0369$ $+.0342$	$^{+\ 10}_{-\ 13}_{-\ 9}$
4 5	May 8-June 11 June 12-July 5	60.7 72.4		$^{+}_{-}$ 0317 $^{+}_{-}$ 0263	1.0	+ .0313 + 0287	$-4 \\ +24$
6 7 8 9	July 9-July 25 Aug. 5-Sept. 15 Oct. 2-Nov. 12 Nov. 15-Dec. 6	70.8 66.2 47.0 35.5	25.2823	$   \begin{array}{r}     + 0302 \\     - 0176 \\     - 0083 \\     - 0077   \end{array} $	1.0 1.0 1.0 1.0	+ 0290 - 0100 - 0057 - 0032	$   \begin{array}{r}     -12 \\     +76 \\     +26 \\     +45   \end{array} $
10	Dec. 25-Jan. 24	21.5	25.28675	- 0020	0.7	- 0045.5	-25
11 12 13	1895. Jan. 27-Mar. 28 Apr. 10-Mar. 6 May 9-June 29	28.9 47.3 62.0		$-0040 \\ -0065 \\ -0123$	1.0 0.7 1.0	- 0061.5 - 0102.5 - 0134.5	- 22 - 37 - 11
14	July 9-Aug. 19	67.6		<b>— 0064</b>	1.0	- 0147.5	<b>—</b> 83

A graphic construction showed that the values of  $\frac{1}{2}R$  might be approximately represented by the expressions—

$$25''.2939 + x + (t - 21^{\circ}.5)$$
 z before July 25, 1894.  $25''.2647 + y + (t - 21^{\circ}.5)$  z after July 25, 1894.

Solving the resulting equations for x, y and z, these expressions become—

$$25''.3075 - 2.21$$
 ( $t - 21^{\circ}.5$ ).  $25''.2647 - 2.21$  ( $t - 21^{\circ}.5$ ).

t being the mean temperature and the coefficient 2.21 expressed in units of the fourth decimal place of the screw value.

From these expressions result the adjusted values given in the foregoing table.

The agreement is not altogether satisfactory, as shown by the residuals—in fact, it would, perhaps, have been better to make a strictly empirical adjustment. However, no appreciable difference could have followed in the final treatment of the latitudes.

No correction has been applied for periodic errors. A former attempt to determine this correction by means of Harkness' measuring engine was not successful; it seemed to be quite small, and it will be pretty effectually eliminated from the mean of a considerable number of measurements.

The derivation of the best attainable values of the star declinations employed has formed a relatively small part of a more extended undertaking, viz.: that of investigating the coördinates of all stars employed in the latitude work of the Sayre Observatory.

This subject will not be treated in detail at present, as the plan involves a more extended presentation in another place.

In the star list which follows the coördinates of those stars found in Newcomb's Fundamental Catalogue\* were taken from that publication, but were reduced to the system of Auwers. The declinations of the remaining stars were deduced from what is believed to be practically all existing material, including observations made at the Lick Observatory, kindly furnished in advance of publication by R. H. Tucker. The reduction to Auwers' system has been applied in all cases where such was available. In case of a few of the newer series where this relation had not been investigated the Catalogue places were employed directly, but with a somewhat diminished weight.

It is not to be inferred that the system of Auwers is considered superior to that of Newcomb, but as this is the system more generally used in latitude work of this character, its employment here renders the results more directly comparable with those obtained elsewhere than would otherwise be the case. In the two pages which follow are found the mean coördinates for 1875, with elements of reduction to any epoch which appear to call for no explanation. The numbers are those of the British Association Catalogue. Those stars marked N were taken from Newcomb's Catalogue.

This list is followed by a second, giving the mean places for 1894 and 1895. The reduction to apparent place is as follows:

$$\frac{1}{2} (\delta + \delta') = \frac{1}{2} (\delta_0 + \delta_0') + \frac{1}{2} (\mu' + \mu'_1) \tau + \frac{1}{2} (\alpha' + \alpha'_1) A + \frac{1}{2} (b' + b'_1) B + \frac{1}{2} (c' + c'_1) C + \frac{1}{2} (d' + d'_1) D$$

 $\delta$  and  $\delta'$  being the apparent declinations required,  $\delta_0$  and  $\delta_0'$  the mean declinations here given.

A, B, C and D are taken from the American Ephemeris, where the significance of the remaining symbols may be found.

<sup>\*</sup> Catalogue of Fundamental Stars for 1875 and 1900 reduced to an absolute system; Astronomical Papers prepared for the use of the American Ephemeris and Nautical Almanac, Vol. VIII, Part II.

	Star.	Мад.	Right Ascension, 1875.	$\frac{da}{dt}$	$rac{d^2a}{d\ell^2}$	μ	Declination, 1875.	$\frac{d\delta}{dt}$	$\frac{d^2\delta}{dt^2}$	$\frac{(100)^3}{6} \frac{d^3\delta}{dt^3}$	μ′	
	$(1)_{1821}^{1751}$	5.5 6.0	h m s 5 29 55.00 5 39 34.23	+ 5.9977 3.4478	+ 00027 + 4	0006	65 37 34.15 15 46 17.27	+ 2.5911 1.7864	008683 5015	136 021	-0337 + 0011	
	$(2){}^{1862}_{1874}$	6.0 7.0	5 45 16.25 5 47 50.68	+ 3.4068 6.2172	$\begin{array}{c c} + & 3 \\ + & 12 \end{array}$	0015	14 8 16.31 66 59 52.43	+ 1.2898 1.0174	- 4960 - 9059	014 053	$+.0018 \\0457$	
	$(3) \   {}^{1923}_{1942}$	6.0 6.0	5 54-17.28 5 57 58.14	+4.3250 $4.1343$	$\begin{vmatrix} + & 3 \\ + & 2 \end{vmatrix}$	+.0105 $0010$	42 54 45.79 38 29 28.93	+ 0.3511 0.1357	— 6323 — 6028	-0.006 + 0.002	1487 0420	
i.	$(4){}^{1970}_{2007}$	$\begin{array}{c} 6.5 \\ 4.3 \end{array}$	6 2 0.21 6 8 35.62	+ 3.6148 5.3013	+ 1 - 4	-0.0032 + 0.0009	22 12 28.27 59 3 10.51	- 0.1745 - 0.7247	- 5266 $-$ 7724	$^{+}_{+}$ .006 $_{+}$ .039	$^{+.0008}_{+.0271}$	N
Group	$(5){}^{2045}_{2101}$	5.5 7.5	6 15 53.97 6 22 49.04	+ 5.2422 3.6267	- 8 - 1	0050	58 28 56.15 22 37 32.72	-1.3973 $-1.9912$	— 7613 — 5254	$^{+ .064}_{+ .034}$	-0.0072 + .0021	
5	$(6){}^{2139}_{2159}$	$\frac{6.7}{5.1}$	6 27 57.13 6 30 24.17	+ 4.1295 4.2894	- 5 - 7	<b>— .0013</b>	38 32 37.82 42 35 46.54	-2.4613 $-2.7119$	- 5967 - 6187	$^{+.057}_{+.069}$	0215 0594	
	$(7){}^{2187}_{2233}$	5.1 6.0	6 35 11.25 6 44 3.54	+ 5.3101 3.5985	_ 20 _ 4	0110 0015	59 33 53.72 21 54 23.21	- 3.0706 - 3.8614	- 7624 - 5133	$^{+.135}_{+.060}$	0037 <b>0</b> 298	
	$(8){}^{2301}_{2341}$	6.5 5.6	6 55 33.66 7 3 38.30	+ 3.8211 4.6964	— 9 — 23	+ .0132	29 32 40.18 51 37 59.68	- 5.6255 - 5.4925	- 5408 - 6563	$^{+.091}_{+.171}$	-0.8112 + .0048	
	$(9){}^{2365}_{2410}$	7.7 3.6	7 7 48.05 7 12 39.39	+ 5.2023 3.5900	$\begin{bmatrix} - & 38 \\ - & 7 \end{bmatrix}$	0100 0009	59 8 14.81 22 12 37.58	-5.8709 $-6.2573$	- 7218 - 4946	$^{+.237}_{+.095}$	-0.0243 $-0.0056$	N
	$(10){}^{2439}_{2473}$	5.8 4.8	7 17 51.28 7 22 50 27	+ 6.3099 3.3439	- 83 - 5	+ .0016 0002	68 43 2.93 12 15 47.15	-6.7301 $-7.1017$	— 8650 —.004531	$^{+.438}_{+.088}$	0479 0099	N
	$(1){}^{4694}_{4701}$	7.2 6.0	14 0 53.56 14 3 37.04	$+\frac{2.6607}{2.2455}$	_ 4 _ 6	0070	31 26 53.82 50 2 58.10	—17.4277 —17.1566	+.002028 + 1751	$^{+}_{+}.101$ $^{+}_{-}.066$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	
	$(2){}^{4728}_{4758}$	6.0 6.0		+ 2 4259 2 4642	_ 5 _ 4		42 6 22.85 39 22 9.29	-17.0451 $-16.6933$	$^{+}_{-}$ 1965 $^{+}$ 2064	$^{+}_{+}.079$	1011 0024	
	$(3)\ {}^{4825}_{4841}$	6.2 6.	14 29 31.88 14 33 30.82	$+\frac{2.4567}{2.2570}$	$\begin{bmatrix} - & 2 \\ - & 2 \end{bmatrix}$	0086	37 10 33.39 44 10 55.50	—15.9886 —15.6918	$\begin{array}{cccc} + & 2244 \\ + & 2104 \end{array}$	$^{+.078}_{+.064}$	-0536 + 0293	
	$(4)\ \frac{4874}{4905}$		14 38 56.36 14 45 37.48	$+ \frac{1.4902}{2.7670}$	$\begin{array}{cccc} + & 10 \\ + & 2 \end{array}$	+ .0115 + .0100	61 47 42.71 19 37 14.04	-15.4542 $-15.1218$		$^{+.045}_{+.102}$	0323 0803	N
Group II.	$(5)\ {}^{4926}_{4949}$	5.7 4 9	14 50 19 27 14 55 36.08	$+2.8287 \\ 0.9348$	$\begin{array}{cccc} + & 4 \\ + & 29 \end{array}$	0020 0124	14 57 9.49 66 25 50.42	-14.7674 $-14.4330$		$^{+}_{+}$ .106 $^{+}_{-}$ .058	-0.0009	N N
Gron	$^{(6)}_{\ 5000}^{\ 4974}$		14 59 40.35 15 5 34.98	$+ \frac{1.9810}{2.4302}$	$\begin{array}{c c} + & 2 \\ - & 1 \end{array}$	0376	48 8 30.82 33 33 11.89	—14.1646 —13.8332		$^{+.049}_{+.070}$	+ .0361 0023	N
	$(7) \frac{5072}{5113}$		15 16 48.30 15 25 24.60	+ 2.4004 1.9067	+ 1 + 4	0050	33 22 55.55 48 8 35.78	-13.0931 $-12.5294$		$^{+}_{+}$ .065 $^{+}_{-}$ .044	$+ .0104 \\0050$	
	$(8)  {5147 \atop 5180}$		15 29 10.63 15 35 14.29	$+ 0.8277 \\ 2.7536$	$\begin{array}{ccc} + & 26 \\ + & 4 \end{array}$	0140 0005	64 37 46.26 16 25 44.63	—12.1847 —11.8507	$^{+}_{-}$ $^{993}_{3291}$	$^{+.057}_{+.082}$	$+.0806 \\0093$	
	$\textbf{(9)}\ \frac{5210}{5236}$	6.5 6.0	15 39 26.97 15 43 25.40	$+1.6301 \\ 2.4704$	$\begin{array}{ccc} + & 7 \\ + & 3 \end{array}$	0040	52 45 22.11 28 32 28.75	—11.5069 —11.2549	$^{+}_{-}$ $^{1989}_{3030}$	$^{+.038}_{+.062}$	$^{+.0352}_{+.0011}$	
	$(10)$ $\begin{array}{c} 5271 \\ 5295 \end{array}$	4 6 5.5	15 48 21.29 15 51 14.70	$+\ \frac{2.0728}{2.1821}$	$\begin{array}{cccc} + & 2 \\ + & 3 \end{array}$	+ .0400 + .0037	42 48 8.18 38 18 32.54	—10.2675 —10.5979	$\begin{array}{cccc} + & 2634 \\ + & 2744 \end{array}$	$^{+.042}_{+.046}$	$^{+.6288}_{+.0844}$	N

	Star.	Mag.	Right Ascen- sion, 1875.	$\frac{da}{dt}$	$\frac{d^2a}{dt^2}$	μ	Declination, 1875.	$\frac{d\delta}{dt}$	$\frac{d^2\delta}{dt^2}$	$\frac{(100)^3}{6}  \frac{d^3\delta}{dt^3}$	μ′	
	$(1)\frac{5941}{6006}$	2.3 4.9	h m s 17 29 7.97 17 37 43.11	$\begin{vmatrix} +2.7828 \\ -0.3592 \end{vmatrix}$	$\left  { + \atop + \atop 00003} \atop + \atop 11 \right $	$^{+}_{+}.0080$ $^{+}_{-}.0018$	0 12 39 9.19 68 48 55.94	- 2.9184 - 1.6344	+.004045 $510$		$2256 \\ +.3151$	1
	$(2)\frac{6122}{6143}$	5.8 3.7	17 57 21.18 18 1 25.44				72 0 59.20 9 32 51.52				-0.0078 + 0.0969	ı
	$(3)$ ${6193 \atop 6203}$	6.0 5.3	18 8 54.62 18 11 45.55	+1.9987 $+1.8644$	$\begin{vmatrix} + & 2 \\ + & 2 \end{vmatrix}$	0017 - 0007	$\begin{vmatrix} 38 & 44 & 22.70 \\ 42 & 7 & 3.70 \end{vmatrix}$	$\left  egin{matrix} + & 0.7838 \ + & 1.0309 \end{matrix} \right $	$\begin{array}{cccc} + & 2907 \\ + & 2710 \end{array}$		$+.0043 \\ +.0024$	1
<b>-</b>	$(4) {}^{6232}_{6258}$	6.5 6.0	18 15 2.80 18 18 33.05			+.0030	29 36 47.62 51 14 28.25				$+.0102 \\0122$	
Group III.	${\bf (5)} {}^{\bf 6373}_{\bf 6387}$	$\frac{6.5}{4.3}$	18 36 53.24 18 40 16.96			0020	60 35 43.03 20 25 41.21	$+\   \begin{array}{r} 3.2589 \\ 3.1726 \end{array}$			$+.0451 \\3341$	1
<u> </u>	$(6)^{'}_{6476}_{6491}$	6.0 3 3	18 51 29.30 18 54 16.09			0085 - 0005	48 42 13.81 32 31 9.37	$+\ \begin{array}{r} 4.3436 \\ 4.7073 \end{array}$			$\left  {1240 \atop + .0029} \right $	1
	$(7)  {6534 \atop 6579}$	5.7 6.0	19 0 12.14 19 8 50.81			<b>—</b> .0153	31 33 32.09 49 37 16.27	$+\ \begin{array}{c} 5.1369 \\ 6.5575 \end{array}$	$egin{pmatrix} + & 3188 \ + & 2120 \end{matrix}$		$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	
	$(8)  {6599 \atop 6656}$	4.5 6.5	19 12 1.82 19 19 59.51			-0015 + 0027	37 54 43.78 43 8 42.92	$\begin{array}{c} + & 6.2136 \\ + & 6.8221 \end{array}$	$egin{pmatrix} + & 2857 \\ + & 2574 \end{bmatrix}$		$\left  { + .0140} \atop {0362} \right $	1
	$(9) \begin{array}{l} 6697 \\ 6740 \end{array}$	3.9 4.0	19 26 33.26 19 34 26.30				51 27 51.02 29 51 58.67				$\left  { + .1250 \atop + .0468 } \right $	1
	(1) <sup>7509</sup> <sub>7522</sub>		21 28 59.03 21 32 16.21			+ 0056	75 51 14.56 5 12 30.91				$\begin{vmatrix}0107 \\ +.0308 \end{vmatrix}$	
	$(2)\ \frac{7561}{7597}$		21 38 2.80 21 41 32.10				9 18 9.89 71 44 50.27				+.0093 $0433$	N
(3)	B. D.59.2444 7712	7.4 6.0	21 55 23.04 22 1 58.16	$+1.8887 \\ +2.8144$	$\begin{vmatrix} + & 7 \\ + & 5 \end{vmatrix}$	- 0038	59 41 56.30 21 5 42.22				$+.0044 \\0655$	
	$(4)$ $\frac{7760}{7796}$		22 7 47.39 22 15 21.95			+ .0011	69 30 55.01 11 34 33.48	+.17.7057 $18.0168$			$\left  { + .0075} \atop { + .0166} \right $	ı
· >	$(5)$ $\frac{7820}{7843}$		  22 19 27.00  22 24 18.86				48 50 35.16 31 55 59.80				0133 0058	l
Group IV.	(6) $\frac{7915}{7932}$		22 35 53.01 22 38 31.18				39 34 22.44 41 9 49.01				$\begin{bmatrix}0029 \\ +.0148 \end{bmatrix}$	l
Gr	$(7) \frac{7962}{7978}$		22 44 43.70 22 47 28.86			0018	41 17 30.61 39 30 12.46				0061 0121	
	$(8)\frac{8024}{8052}$		22 56 14.00 23 1 1.50				56 26 3.21 24 47 38.07				0064 0279	
	$(9) \frac{8078}{8122}$	5.2	23 5 25.57 23 13 22.04	+3.0270	+ 3	0007 0096	8 2 29.52 73 0 21.60	$+\ 19.5022$	+ 957	157	+.0139 $0321$	N
	$(10) \frac{8195}{8229}$	6.0	23 25 8.80 23 32 0.62	+2.9332	+ 21	+ 0223	38 32 58.87 42 34 34.12	+ 19.7497	+ 567	144	0731 + .0026	N
	$(11)\frac{8252}{8284}$	6.5	23 37 0.68 23 43 19.97	+2.8950	+ 35	0030	52 27 33.04 28 8 47.79	$+\ 19.9492$	+ <b>3</b> 36	139	$ \begin{array}{c c}0043 \\ +.0194 \end{array} $	
	(12) 8317 8324	7.5	23 49 18.36 23 51 24.51	+2.9744	+ 44	_ 0028	56 42 59.50 24 26 47.38	$+20\ 0216$	+ 116	— .151	0108 0258	N

	Pair.		a189	4.	1895.		δ18	94.	1895.	Zenith 1	Di <b>s</b> tar	ice, 1894.		S-N.
	(1)	h 5 5	m 31 40	49.01 39.75	55.01 43.20	65 15	38 46	21.82 50.30	24.24 51.99	25 24	1 49	58 34	N S	- 12 24
	(2)	5 5	$\begin{array}{c} 46 \\ 49 \end{array}$	20.98 48.83	24.39 55.05	14 67	8 0	39.92 10.13	41.11 10.97	26 26	27 23	44 46	s N	+ 3 58
	(3)	5 5	55 59	39.46 16.70	43.79 20.83	42 38	54 29	51.33 30.43	51.55 <b>30</b> .44	2 2	18 6	27 54	N S	— 11 <b>33</b>
	(4)	6 6	$\begin{matrix} 3 \\ 10 \end{matrix}$	8.89 16.34	12.50 21.64	22 59	$^{12}_{\ 2}$	24.01 55.35	23.73 54.47	18 18	24 26	0 31	s N	_ 2 31
Group I.	(5)	6 6	17 23	33.56 57.95	38.80 61.58	58 22	28 36	28.23 53.95	26.68 51.85	17 17	52 59	4 30	N S	+ 7 26
Gr	(6)	$\frac{6}{6}$	29 31	$15.58 \\ 45.66$	19.71 49.95	33 42	31 34	49.98 53.90	47.40 51.06	2	<b>4</b> 58	34 30	S N	+ 6 4
	(7)	6 6	$\begin{array}{c} 36 \\ 45 \end{array}$	$52.11 \\ 11.90$	57.42 15.50	59 21	32 53	$54.00 \\ 8.92$	50.78 4.96	18 18	56 <b>4</b> 3	30 15	N S	<b>—</b> 13 15
	(8)	$^6_{7}$	$\begin{array}{c} 56 \\ 5 \end{array}$	$\frac{46.24}{7.49}$	50 06 12.18	29 51	30 36	$52.32 \\ 14.14$	46.59 8.52	11 10	5 59	32 50	S N	+ 5 42
	(9)	7 7	9 13	26.83 47.59	32.03 51.18	59 22	$\begin{matrix} 6 \\ 10 \end{matrix}$	21.97 37.80	15.95 31.44	18 18	29 25	58 46	N S	_ 4 12
	(10)	7 7	19 23	51 02 53.79	57.31 57.13	68 12	40 13	53.50 31.40	46.60 24.21	28 28	4 22	30 53	N S	+ 18 23
	(1)	14 14	1 4	44.11 19.69	46.77 21.93	31 49	21 57	23.06 32.44	5.67 15.32	9 9	15 21	1 8	S N	_ 6 7
	(2)	14 14	10 15	$7.12 \\ 26.53$	9.55 28.99	42 39	$\begin{matrix} 0 \\ 16 \end{matrix}$	59.35 $52.49$	42.34 35.84	1 1	24 19	35 32	N S	- 5 3
	(3)	14 14	30 34	$18.55 \\ 13.70$	21.01 15.96	37 44	5 5	30.01 57.73	14.07 42.08	3	30 <b>29</b>	54 84	s N	+ 1 20
. •	(4)	14 14	$\begin{array}{c} 39 \\ 46 \end{array}$	24.69 30.06	26.18 32.83	61 19	42 32	49.34 27.22	33.92 12.15	21 21	6 <b>3</b>	25 57	N S	_ 2 28
Group II.	(5)	14 14	51 55	13.02 53.89	15.85 54.83	14 66	52 21	29.42 16.37	14.71 1.96	25 25	43 44	55 52	S N	_ 0 5 <b>7</b>
Gro	(6)	15 15	$_{6}^{0}$	17.99 21.15	19.97 23.58	48 33	3 28	$62.06 \\ 49.53$	47.94 35.76	7 7	$\begin{array}{c} 27 \\ 7 \end{array}$	38 34	N S	_ 20 4
	(7)	15 15	$\begin{array}{c} 17 \\ 26 \end{array}$	33.91 0.83	36.31 2.74	33 48	18 4	47.27 38.12	34.23 25.64	7 7	17 28	37 14	$_{\mathbf{N}}^{\mathbf{S}}$	<b>— 10 37</b>
	(8)	15 15	29 36	$\substack{26.40 \\ 6.62}$	27.23 9.37	64 16	33 21	54.93 60.06	42.76 48.27	23 24	57 14	31 24	N S	+ 16 53
	(9)	15 15	39 44	$57.96 \\ 12.34$	59.59 14.81	52 28	41 28	43.84 55 45	32.37 44.26	12 12	5 7	20 29	N S	+ 2 9
	(10)	15 15	49 51	$\begin{array}{c} 0.68 \\ 56.17 \end{array}$	2.75 58.35	42 38	44 15	53.57 11.67	43.36 1.13	2 2	8 21	30 12	N S	+ 12 42

	Pair.	a1894.	1895.	δ1894.	1895.	Zenith Distance, 1894.		S—N.
	(1)	h m s 17 30 0.85 17 37 34.30	3.63 33.94	12 38 14.47 68 48 24.79	11.63 23.15	27 58 10 28 12 1	s N	- 13 51
	(2)	$\begin{array}{cccc} 17 & 57 & 1.33 \\ 18 & 2 & 19.46 \end{array}$	0.29 <b>22</b> .30	72 0 54.38 9 32 56.48	$54.11 \\ 56.78$	31 24 30 31 3 28	N S	21 2
	(3)	18 9 32.60 18 12 20.98	34.60 22.84	38 44 38.12 42 7 23.77	$38.96 \\ 24.86$	1 51 46 1 31 0	s N	+ 20 46
I.	(4)	18 15 46.83 18 18 59.89	49.15 61.30	29 37 13.42 51 14 59.19	$\begin{array}{c} 14.81 \\ 60.84 \end{array}$	10 59 11 10 38 35	s N	+ 20 36
Group III.	(5)	18 37 7.12 18 41 5.98	7.85 8.56	60 36 45.14 20 26 42.15	48.42 45.40	20 0 21 20 9 42	N S	+ 9 21
Gro	(6)	18 51 59.32 18 54 58.71	60.90 60.95	48 43 36.73 32 32 39.38	41.12 44.15	8 7 13 8 3 45	N S	- 3 28
	(7)	$\begin{array}{cccc} 19 & 0 & 55.45 \\ 19 & 9 & 20.36 \end{array}$	57 73 21.91	31 35 10.27 49 39 21.24	$15.47 \\ 27.84$	9 1 14 9 2 57	s N	<b>—</b> 1 43
	(8)	$\begin{array}{cccc} 19 & 12 & 41.35 \\ 19 & 20 & 35.56 \end{array}$	43.43 37.46	37 56 42.35 43 10 53.01	$\frac{48.62}{59.88}$	2 39 42 2 34 29	S N	+ 5 13
	(9)	19 27 2.02 19 35 11.27	3.53 13.64	51 30 14.27 29 54 32.73	21.83 40.87	10 53 50 10 41 51	N S	<b>—</b> 11 59
	(1)	21 28 55.50 21 33 13.29	55.30 16.29	75 56 15.58 5 17 36.53	31.42 52.64	35 19 52 35 18 47	N S	_ 1 5
	(2)	21 38 58.79 21 41 46.41	61.74 47.16	9 23 20.75 71 50 3.13	$37.14 \\ 19.60$	31 13 3 31 13 <b>39</b>	S N	<b>—</b> 0 36
	(3)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	60.83 54.46	59 47 22.71 21 11 12.93	39.90 30.36	19 10 59 19 25 11	N S	+ 14 12
	(4)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	15.16 21.00	69 36 31.58 11 40 16.13	49.30 34.18	29 0 8 28 56 8	$_{ m S}^{ m N}$	_ 4 0
	(5)	$\begin{array}{cccc} 22 & 20 & 13.00 \\ 22 & 25 & 10.90 \end{array}$	15.42 13.64	48 56 20.11 32 1 48.26	$\frac{38.28}{66.62}$	8 19 56 8 34 36	N S	+ 14 40
Ŋ.	(6)	22 36 43.91 22 39 21.83	46.59 24.50	39 40 18.28 41 15 46.72	$\frac{37.02}{65.56}$	0 56 6 0 39 23	S N	+ 16 43
Group IV.	(7)	22 45 34.91 22 48 20.71	37.61 23.44	41 23 31.37 39 36 14.55	50.37 33.62	0 47 7 1 0 9	N S	+ 13 2
G	(8)	$\begin{array}{cccc} 22 & 57 & 1.90 \\ 23 & 1 & 56.89 \end{array}$	4.42 59.81	56 32 9.63 24 53 46.20	$28.93 \\ 65.59$	15 55 46 15 42 38	N S	- 13 8
	(9)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	26.12 5.69	8 8 40.24 73 6 34.26	$59.76 \\ 53.88$	32 27 44 32 30 10	S N	_ 2 26
	(10)	23 26 4.57 23 32 56.24	7.51 59.17	38 39 14.22 42 40 52.44	33.98 72.36	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$_{\mathbf{N}}^{\mathbf{S}}$	- 7 18
	(11)	23 37 55.75 23 44 17.45	58.65 20.48	52 33 52.13 28 15 8.22	72.09 28.25	11 57 28 12 21 16	$_{ m S}^{ m N}$	+ 23 48
	(12)	23 50 14.95 23 52 22.42	17.93 25.47	56 49 19.94 24 33 7.66	39.96 27.68	16 12 56 16 3 16	$_{ m S}^{ m N}$	<b>—</b> 9 40

### The Latitude Observations.

The details of the latitude determination are found in the pages following. The expression for the latitude is—

$$\phi = \frac{1}{2} (\delta + \delta') + \frac{1}{2} R (M - M') + \frac{1}{4} d [(n - n') - (s' - s)] + (m + m') + \frac{1}{2} (r - r')$$

M and M' are the corrected readings of the micrometer.

n, s, n', s', the readings of the north and south end of the level for the two stars.

m, m', corrections for curvature.

r, r', corrections for refraction.

The contents of most of the columns will be sufficiently explained by the headings.

Column P gives the position of the instrument.

D, direct, the telescope east when pointing south of the zenith.

R, reverse, the telescope west when pointing south of the zenith.

Column C gives the correction for progressive errors of the screw.

Levels A and B, the value of (n-n') — (s'-s) for each level.

Column  $\delta$  gives the correction required on account of  $\Delta^{\frac{1}{2}}R$ , found on page 83. In case of those pairs observed with threads II and IV this is combined with the correction for the amount by which the distance between those threads differs from twenty revolutions of the screw.

Throughout this table the footnote references a, b, c, and d indicate as follows: a = e. e. f.; b = definition very poor; c = levels discordant; d = clouds.

001	Sto	72	P	Win-	m atam	c	Lev	els.	$\frac{1}{2}(\delta + \delta')$		Correct	ions.			Latitude.	Ther
894	Sta	<i>ι</i> Γ.	ν.	Micro	meter.		A	В	2(0 T 0)	Micrometer.	δ	ı	r	Mer	Luntuuc.	mom
an. 19	I	1 2 3 4 5		24.6583	12.6470 20.4470 15.9673 22.0447 25.5403	+ 31 + 94 + 374 + 8 + 97	-4.0 + 1.2	$ \begin{array}{r} -3.4 \\ -2.0 \\ + .8 \\ + .1 \\ -1.3 \end{array} $	40 42 48.42 40 34 36.71 40 42 22.54 40 37 50.67 40 32 51.48	-6 23.56 +1 46.65 -5 58.34 -1 27.41 +3 32.17	- 60 + 17 - 56 - 14 + 33	- 90 - 90 + 30 + 23 - 20	$ \begin{array}{r} -13 \\ +4 \\ -10 \\ -3 \\ +7 \end{array} $	8 8 6 7 7	40 36 23.31 22.75 23.90 23.39 23.92	30.6
an.		6 7 8 9 10		25.1847 29.3270 29.8183 22.2080 7.5603 <sup>ii</sup>	18.3807 13.2580 17.3970 16.9083 29.0650iv	+191  + 34  - 21	-2.9 $-1.6$	$\begin{array}{ c c c } -4.4 \\ +1.0 \\ -2.9 \\ -2.0 \\ -1.2 \end{array}$	40 33 31.80 40 43 10.77 40 33 41.17 40 38 37.24 40 27 19.29	$\begin{array}{c} +2\ 52.19 \\ -6\ 46.48 \\ +2\ 42.34 \\ -2\ 13.73 \\ +9\ \ 3.31 \end{array}$	$egin{pmatrix} + & 26 \\ - & 64 \\ + & 25 \\ - & 21 \\ + & 83 \end{bmatrix}$	$ \begin{array}{r} -1.28 \\ + 29 \\ - 84 \\ - 51 \\ - 40 \end{array} $	$     \begin{array}{r}     +5 \\     -12 \\     +5 \\     -4 \\     +20     \end{array} $	6 7	23.08 23.89 23.03 22.82 23.32	30. 29.
25	I	1 2 3 4 5	R	14.0800 19.9213 14.6907 24.2683 24.8627	29.3317 24.0473 28.9170 20.7807 16.5750	$     \begin{array}{r}     +227 \\     +70 \\     +222 \\     +77 \\     +52     \end{array} $	$\begin{array}{c c} +1.9 \\ -1.5 \\ +1.5 \end{array}$	$\left  { \begin{array}{c} + \ .7 \\ + \ .9 \\ + \ .4 \\ + 1.6 \\ + 1.5 \end{array}} \right $	40 42 49.16 40 34 37.46 40 42 23.36 40 37 51.48 40 32 52.30	$\begin{array}{c} -6\ 25.95 \\ +1\ 44.43 \\ -6\ 0.03 \\ -1\ 28.32 \\ +3\ 29.54 \end{array}$	$\begin{array}{r} - & 60 \\ + & 17 \\ - & 56 \\ - & 14 \\ + & 33 \end{array}$	$egin{pmatrix} + & 26 \\ + & 42 \\ + & 3 \\ + & 44 \\ + & 45 \end{bmatrix}$	$     \begin{array}{r}       -13 \\       +4 \\       -10 \\       -3 \\       +7     \end{array} $	8 6 7	22.82 22.60 22.76 23.50 22.76	21. 21. 21.
		6 7 8 9 10		16.3180 12.1583 17.2093 18.1737 31.7237iv	23.0093 28.3080 23.5427 23.5317 10.2847	$ \begin{array}{c c} - 22 \\ + 32 \\ + 20 \\ + 40 \\ + 12 \end{array} $	$\begin{vmatrix} + .7 \\ +2.0 \\3 \end{vmatrix}$	$\begin{vmatrix} +1.2 \\ + .6 \\ +1.5 \\ + .3 \\2 \end{vmatrix}$	40 33 32.66 40 43 11.61 40 33 42.02 40 38 38.11 40 27 20.05	$ \begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	_ 21	$\begin{vmatrix} + & 45 \\ + & 18 \\ + & 52 \\ - & 1 \\ - & 36 \end{vmatrix}$	$     \begin{array}{r r}       -12 \\       + 5 \\       - 4     \end{array} $	7 6 7	22.50 22.95 22.98 22.44 22.55	20 20
an. 27	I	1 2 3 4 5		27.6193 22.0680 27.3453 17.1290 15.3263	12.3807 17.9097 13.1350 20.6350 23.6640	- 1 + 30 - 34 - 37	$\begin{vmatrix} +1.1 \\ -1.0 \end{vmatrix}$	$ +1.2 \\ -3$	40 34 37.62 40 42 23.54 40 37 51.66	+145.07 $-559.14$ $-128.50$	$\begin{vmatrix} + & 17 \\ - & 56 \\ - & 14 \end{vmatrix}$	$\begin{vmatrix} - & 41 \\ + & 17 \\ - & 31 \\ + & 6 \\ + & 2 \end{vmatrix}$	$\begin{array}{ c c c } + 4 \\ -10 \\ - 3 \end{array}$	8 6 7	23.19 23.15 23.49 23.12 23.56	26
		6 7 8 9 10		23.2457 27.9270 23.3103 21.9970 8.3810 1	16.5013 11.8237 16.9490 17.6553 1 29.81501	- 25 - 25 + 5 - 15	$\begin{bmatrix} -1.9 \\ -1.3 \end{bmatrix}$	$\begin{vmatrix} -1.8 \\5 \\ +.9 \end{vmatrix}$	40 43 11.80 40 33 42.24 40 38 38.33	$egin{array}{c c} -6 & 46.84 \\ +2 & 40.75 \\ -2 & 14.95 \\ \end{array}$	$ \begin{array}{c c} - & 64 \\ + & 25 \\ - & 21 \end{array} $	$-\   \begin{array}{c c} -\ 26 \\ +\ 14 \end{array}$	-12 + 5 - 4	6 7	23.26 23.72 23.09 23.34 22.93	26
in. 27	II	1 2 3 4 5		15.6303 23.7070 21.9730 19.7397 19.4913	22.0747 18.5513 19.5720 17.6017 19.8543	- 64 + 34 + 14 - 25	$\begin{vmatrix} 4 & + .9 \\ 5 & + .7 \end{vmatrix}$	$\left  { \begin{array}{c} + .5 \\1 \\ +1.0 \end{array}} \right $	40 38 34.01 40 35 21.41 40 37 16.62	$egin{array}{c c} -2 & 10.36 \\ +1 & 0.71 \\ - & 53.95 \\ \hline \end{array}$	$\begin{vmatrix} - & 20 \\ + & 10 \\ - & 8 \end{vmatrix}$	$\begin{vmatrix} + & 22 \\ + & 10 \\ + & 3 \end{vmatrix}$	- 3 + 2 - 2	6 6 7	23.08 23.70 22.40 22.67 22.93	25
an. 28	I	6 7 8 1	R	31.2783 <sup>1</sup> 14.6627 9.5983 12.5893 19.0140	8.3383 26.3770 30.4910 27.8300 23.1793	$\begin{vmatrix} + & 5 \\ + & 2 \end{vmatrix}$	$egin{array}{ccc} 0 & + & .9 \ 6 & + & .5 \end{array}$	$\begin{vmatrix} + .6 \\6 \\ + .8 \end{vmatrix}$	40 41 19.42 40 27 35.41 40 42 49.35	$egin{array}{c c} -4 & 56.13 \\ +8 & 47.91 \\ \hline -6 & 25.16 \\ \end{array}$	$\begin{vmatrix} - & 46 \\ + & 81 \\ - & 60 \end{vmatrix}$	$\begin{vmatrix} + & 1 \\ + & 7 \\ + & 18 \end{vmatrix}$	$     \begin{array}{c c}                                    $	8 6 7 8 8 8	24.45	2:
		3 4 5 6		13.6527 23.6663 23.9243 17.0703 13.7950	27.8787 20.1833 15.5990 23.7873 29.9000	$\frac{1}{+2}$	$egin{array}{c c} 1 & - & .1 \\ 8 & +1.5 \\ 9 & - & .3 \\ 6 & - & .4 \\ 9 & -1.6 \\ \end{array}$	$\begin{vmatrix} +1.5 \\ + .2 \\9 \end{vmatrix}$	40 37 51.78 40 32 52.56 40 33 32.98	$egin{array}{c c} -1 & 28.15 \ +3 & 30.31 \ +2 & 49.79 \ \end{array}$	$\begin{vmatrix} - & 14 \\ + & 38 \\ + & 26 \end{vmatrix}$	$\begin{vmatrix} + & 43 \\ - & 2 \\ - & 20 \end{vmatrix}$	— {   + 7   + 8	3 7 7 7 5 6	23.91 23.32 22.91	
an. 30		1 2 3 4 5	3 1	24.8433 22.4630 26.3643 17.9990 16.8840	9.5513 18.3093 12.0900 21.5027 25.1503	+ 1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{array}{c c} -2.9 \ + .5 \ -1.5 \ \end{array}$	40 34 37.78 40 42 23.78 40 37 51.88	$egin{array}{c c} +1 & 44.99 \ 3 & -6 & 0.48 \ 5 & -1 & 28.51 \ \end{array}$	$\begin{vmatrix} + & 17 \\ 3 & - & 56 \\ - & 14 \end{vmatrix}$	$\begin{vmatrix} -56 \\ +29 \\ -34 \end{vmatrix}$	<b>؛ —</b> إ	4 8 0 6	22.50 22.99 22.90	
	I	10	7	28.1793 22.1067	17.1903 12.0373 15.7443 17.2050 11.2050	+ 1	$ \begin{vmatrix} -2 & -2 & 0 \\ -2 & 0 \\ -1 & -1 & 0 \\ 6 & -1 & 2 \\ 3 & + & 5 \end{vmatrix} $	3 —1.9 — .5	40 33 33.09 40 43 12.09 40 33 42.49 40 38 38.50		$\begin{vmatrix} 1 & -64 \\ +25 \\ 7 & -21 \end{vmatrix}$	$\begin{vmatrix} - & 38 \\ - & 29 \\ - & 41 \end{vmatrix}$	3  -15   + 5   - 7	$egin{array}{c c} 2 & 7 \ 5 & 6 \ 4 & 7 \ \end{array}$	23.04 23.16 23.00	31

	<i>~</i> .	1					Lev	els.	1 ( 0 . 0 . )		Corre	tions.			7	Th
894.	Star	•	P	Micro	meter.	<i>c</i>	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r	Mer	Latitude.	mo
in. 31		1 2 4 5 6		11.4543 17.9183 22.3530 24.9987 16.7357	26.7167 22.1020 18.8797 16.6793 23.4720	$ \begin{array}{c c} -124 \\ 0 \\ + 18 \\ + 59 \\ + 6 \end{array} $	$\begin{vmatrix} -2.1 \\ + .6 \\ -2.0 \end{vmatrix}$	9 2.1 1.0 1.1 1.2	40 42 49.50 40 34 37.84 40 37 51.93 40 32 52.76 40 33 33.18	$\begin{array}{c} -6\ 25.33 \\ +1\ 45.71 \\ -1\ 27.81 \\ +3\ 30.36 \\ +2\ 50.22 \end{array}$	$egin{bmatrix} - & 60 \\ + & 17 \\ - & 14 \\ + & 33 \\ + & 26 \end{bmatrix}$	- 62 - 3 - 45	$ \begin{vmatrix}13 \\ + & 4 \\ - & 3 \\ + & 7 \\ + & 5 \end{vmatrix} $	8	40 36 23.32 23.22 23.99 23.14 23.55	28 28
eb. <b>1</b>	1	7 8 9 0 1		17.7410 18.1583	28.5417 24.0937 23.5107 10.8167 ii 16.4937	$  + 51 \\ + 40$	$egin{array}{c}6 \\ +.4 \\4 \\ +1.2 \\ -2.2 \end{array}$	$egin{array}{c} -0.0 \\ +0.6 \\ -0.2 \\ +1.8 \\ -2.2 \\ \end{array}$	40 43 12.10 40 33 42.56 40 38 38.65 40 27 20.54 40 39 5.94	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	64 + 25 21 + 83 25	$\begin{vmatrix} + & 12 \\ - & 9 \\ + & 42 \end{vmatrix}$	$     \begin{array}{r}       -12 \\       +5 \\       -4 \\       +20 \\       -5     \end{array} $		23.53 23.69 23.04 22.94 23.16	2' 28 25
		2 3 4 5 6		18.4417 19.4670 20.5023 21.7963 9.1133 ii	23.5673 21.9317 22.5873 21.4990 31.9680iv	$egin{pmatrix} + & 45 \\ + & 14 \\ + & 28 \\ + & 4 \\ + & 17 \end{matrix}$	$egin{bmatrix} - & .4 \\ - & .1 \\ + & .2 \\ \hline \end{pmatrix}$	$egin{bmatrix} -\ .4\ +\ .1\ -\ .6\ +\ .3\ -2.0 \end{bmatrix}$	40 38 33.51 40 35 20.83 40 37 16.04 40 36 30.93 40 46 2.04	$\begin{array}{c c} +1 & 2.31 \\ - & 52.75 \end{array}$	- 20 + 10 - 8 - 1 - 88	$ \begin{array}{cccc}  & - & 5 \\  & - & 9 \\  & - & 1 \end{array} $	$egin{bmatrix} -3 \\ +2 \\ -2 \\ 0 \\ -17 \end{smallmatrix}$		23.50 23.27 23.17 23.48 22.96	2
b. 4	II 1	7 8 .0 1 2	D	26.7263 31.5433 <sup>iv</sup> 27.2713 <sup>iv</sup> 16.1913 23.3880	15.0633 10.6517 ii 11.2683 ii 22.6443 18.2530	$+ \frac{8}{25}$	-1.2 + 1.1	$egin{pmatrix} + .5 \\ 0 \\ -1.5 \\ +1.9 \\ + .2 \end{bmatrix}$	40 41 18.66 40 27 34.67 40 29 38.32 40 39 5.63 40 38 33.17	$     \begin{array}{r}     +847.90 \\     +644.42 \\     -242.97     \end{array} $	- 46 + 81 + 61 - 25 - 20	$\begin{vmatrix} + & 8 \\ - & 38 \\ + & 45 \end{vmatrix}$	+11 5	8 7 6	23.58 23.71 23.15 22.87 23.36	,2
eb. 5	I	3 1 2 4 5	D	20.8503 27.4927 22.6073 17.8907 17.0087	18.3943 12.1777 18.4380 21.4060 25.3177	-22 + 19	-1.5 $-1.6$	$ \begin{array}{r}9 \\ +.3 \\ -2.4 \\ -1.1 \\ -1.5 \end{array} $	40 42 50.00 40 34 38.37 40 37 52.49	$     \begin{array}{r}       -6 & 26.92 \\       +1 & 45.40 \\       -1 & 28.80     \end{array} $	$ \begin{array}{r} + & 10 \\ - & 60 \\ + & 17 \\ - & 14 \\ + & 38 \end{array} $	$\begin{vmatrix} + & 12 \\ - & 55 \\ - & 40 \end{vmatrix}$	$\begin{vmatrix} -13 \\ +4 \\ -3 \end{vmatrix}$	8 8 7	22.32 22.55 23.51 23.19 23.59	1 1 1
	1	6 7 8 9		24.2170 28.7087 23.2483 23.1897 9.2247	17.4928 12.5730 16.9587 17.8510 30.6597	$ +\ 90\ +\ 70\ +\ 25$	$\begin{vmatrix}4 \\ -1.7 \end{vmatrix}$		40 43 12.72 40 33 43.22 40 38 39.30	$\begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$ \begin{array}{r} + 26 \\ - 64 \\ + 25 \\ - 21 \\ + 85 \end{array} $	$ \begin{array}{c c}  - 38 \\  - 18 \\  - 52 \end{array} $	$\begin{array}{c c} -12 \\ + 5 \\ - 4 \end{array}$	7 6 7	23.68 23.71 22.34 23.64 23.53	1
еb. 6		1 2 3 4 5	R	12.7857 18.3510 13.2433 22.9643 24.2867	28.0720 22.4823 27.5070 19.4523 16.0197	$   \begin{array}{r}     + 57 \\     + 16 \\     + 47 \\     + 36 \\     + 18   \end{array} $	$\begin{vmatrix} -3.2 \\9 \end{vmatrix}$	$ullet -4.6 \\ -1.2 \\ + .4$	40 34 58.48 40 42 24.52 40 37 52.64	$ \begin{array}{c c} -6 & 0.53 \\ -1 & 28.83 \end{array} $	- 60 + 17 - 56 - 14 + 38	$\begin{vmatrix} -1.11 \\ -30 \\ +16 \end{vmatrix}$	$\begin{vmatrix} + & 4 \\ -10 \\ - & 3 \end{vmatrix}$	8 6 7	23.00 22.09 23.09 23.87 23.20	2 2 2
•		6 7 8 9		17.3513 13.0087 17.7067 17.6847 32.4257	24.0637 29.1663 24.0000 23.0847 11.0243	+ 18	$\begin{vmatrix} -0 \\ +1.6 \\ + .1 \end{vmatrix}$	$\begin{bmatrix} - & 0 \\ +1.4 \\ .0 \end{bmatrix}$	40 43 12.87 40 33 43.37 40 38 39.45	$ \begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$+ 25 \\ - 25$	$\begin{vmatrix} - & 0 \\ + & 45 \\ + & 3 \end{vmatrix}$	$     \begin{array}{r}       -12 \\       +5 \\       -4     \end{array} $	6 7	24.13 23.53 23.32 22.81 23.21	2
eb <b>1</b> 1	ľ	1 2 3 4 5	D	27.9173 22.9650 28.1970 18.0300 16.5260	12.6390 18.8243 I3.8757 21.5780 24.7923	+130	$egin{array}{c c} -1.8 \\ -1.5 \\ -1.5 \\ -1.6 \\ -1.5 \\ -1.$	$ ^{+1.3}_{-2.3}$	40 37 53.04	-6 2.19 $-1$ 29.64	— o	$\begin{vmatrix} + & 57 \\ 4 & - & 44 \end{vmatrix}$	$\begin{array}{c c} + 4 \\ -10 \\ - 3 \end{array}$	8 6 7	23.00 23.57 22.68 22.86 23.27	
	I	7 8 9 10	D	29.4467 23.7220 23.9587 9.8677 15.6027	13.2903 17.4473 18.5483 31.2503 <sup>1</sup> 22.0210	+3 $+5$	$ \begin{array}{c c} 3 &5 \\5 \\ +.8 \\ +.2 \\8 \end{array} $	$-1.5 \\ +2.2$	40 33 43.92 40 38 40.00 40 27 21.82	$\begin{vmatrix} +2 & 38 & 63 \\ -2 & 16 & 86 \\ +9 & 0.30 \end{vmatrix}$	$  - \frac{2}{8} $	$egin{array}{c c} 5 & - & 27 \\ 1 & + & 42 \\ 3 & + & 1 \end{array}$	$^{+}_{-4}^{5}_{+20}$	6 7 9	23.63 22.64 23.38 23.25 23.10	8
'eb 15		2 1 2 3 4	R	23.9343 12.0227 18.6237 13.3550 23.8620	18.8043 27.3173 22.7487 27.6370 20.3357	$+ \frac{2}{6}$	$\begin{bmatrix}8 \\ 4 \\ -1.8 \end{bmatrix}$	$egin{array}{c c} -1.4 \\ -1.4 \\ -1.7 \\ -1.7 \\ -1.7 \end{array}$	40 38 32.92 40 42 50.54 40 34 38.99 40 42 25.12 40 37 53.27	$egin{array}{c c} -6 & 26.34 \\ +1 & 44.29 \\ -6 & 1.03 \\ \hline \end{array}$	$\begin{vmatrix} - & 6 \\ + & 1 \\ - & 5 \end{vmatrix}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} -13 \\ + 4 \\ -10 \end{array}$	8 8 6	23.19 23.23 23.23 23.32 23.63	

1001				10			Lev	vels.	1	1	Correc	tions.				
1894.	3	tar.	P	місто	ometer.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r	Mer	Latitude.	Ther mon
Feb. 15 Feb.	I	5 6 7 8 9		24.9280 17.2970 13.0220 17.5477 18.4893	16.6793 23.9450 29.2033 23.7933 23.9123	$     \begin{array}{r}       + 56 \\       + 36 \\       + 155 \\       + 37 \\       + 56     \end{array} $	$egin{array}{c} -1.1 \6 \ +1.0 \ \end{array}$	$ \begin{array}{r}2 \\3 \\ -1.4 \\ +1.3 \\ + .2 \end{array} $	0 / / // 40 32 54.17 40 33 34.71 40 43 13.62 40 33 44.23 40 38 40.31	$\begin{array}{r} +3\ 28.57 \\ +2\ 48.07 \\ -6\ 49.25 \\ +2\ 37\ 90 \\ -2\ 17.17 \end{array}$	$   \begin{array}{r}     + 33 \\     + 26 \\     - 64 \\     + 25 \\     - 21   \end{array} $	$egin{pmatrix} + & 2 \\ - & 21 \\ - & 29 \\ + & 33 \\ 0 \end{bmatrix}$	$     \begin{array}{r}       + 7 \\       + 5 \\       -12 \\       + 5 \\       - 4     \end{array} $	7 6 7 6 7	0 36 23.23 22.94 23.39 22.82 22.96	25.4 24.8 25.3
	I	1 2 3 4 5		26.2933 23.2107 27.7577 18.2070 16.9117	11.0240 19.0543 13.4470 21.7377 25.1300	$     \begin{array}{r}       -177 \\       + 41 \\       + 75 \\       - 1 \\       + 73     \end{array} $	$-4.3 \\ +2.3 \\ -1$	$ \begin{array}{c c} -2.2 \\ -1.0 \\ +1.0 \\5 \\ +1.8 \end{array} $	40 42 50.62 40 34 39.07 40 42 25.21 40 37 53.36 40 32 54.26	$\begin{array}{c} -6\ 25.37 \\ +1\ 45.13 \\ -6\ 1.79 \\ -1\ 29.21 \\ +3\ 27.84 \end{array}$	$egin{array}{cccc} -&60 \\ +&17 \\ -&56 \\ -&14 \\ +&33 \end{array}$	$\begin{array}{rrrr} - & 11 \\ - & 82 \\ + & 48 \\ - & 10 \\ + & 54 \end{array}$	$-13 \\ + 4 \\ -10 \\ - 3 \\ + 7$	8 8 6 7 7	[24.49] [23.67] 23.30 23.95 23.11	
		6 7 8 9 10		24.8087 28.1637 23.7047 24.3793 9.3317	18.1883 11.9810 17.4350 18.9517 30.7380iv	$egin{pmatrix} + & 87 \\ + & 10 \\ + & 32 \\ + & 70 \\ - & 0 \end{bmatrix}$	$2 \\ + .6 \\7$	$egin{array}{c} + .1 \\ +2.0 \\ +1.0 \\3 \\ -2.3 \end{array}$	40 33 34.82 40 43 13.72 40 33 44.34 40 38 40.42 40 27 22.05	$egin{array}{c} +2\ 47.50 \\ -6\ 48.92 \\ +2\ 38.50 \\ -2\ 17.32 \\ +9\ 0.89 \\ \hline \end{array}$	$egin{pmatrix} +& 26 \ -& 64 \ +& 25 \ -& 21 \ +& 83 \end{bmatrix}$	$egin{pmatrix} + & 27 \\ + & 23 \\ + & 22 \\ - & 15 \\ - & 54 \end{bmatrix}$	$+5 \\ -12 \\ +5 \\ -4 \\ +20$	6 7 6 7 9	22.96 [24.34] 23.42 22.77 23.52	17.9 16.6
	II	1 2 3 4 5	D	17.1837 23.2423 20.7750 20.4573 18.6610	23.5290 18.1080 18.2593 18.4507 18.8947	$egin{pmatrix} + & 20 \\ + & 31 \\ - & 11 \\ - & 9 \\ - & 4 \end{bmatrix}$		$ \begin{array}{r} -3.1 \\ + .2 \\ -1.4 \\7 \\ -1.9 \end{array} $	40 39 5.27 40 38 32.72 40 35 19.79 40 37 14.90 40 36 29.64	$\begin{array}{cccc} -2 & 40.38 \\ -2 & 9.81 \\ +1 & 3.54 \\ - & 50.68 \\ - & 5.89 \end{array}$	$\begin{array}{ccc} - & 25 \\ - & 20 \\ + & 10 \\ - & 8 \\ - & 1 \end{array}$	- 90 - 5 - 29 - 25 - 40	$   \begin{array}{r}     -5 \\     -3 \\     +2 \\     -2 \\     0   \end{array} $	6 6 7 9	23.75 22.69 23.22 23.94 23.43	9.5 10.4 10.8
Feb. 19	I	$6 \\ 7 \\ 8 \\ 10 \\ 1$	$\mathbf{R}$	31.6043 <sup>iv</sup> 14.2550 9.2690 <sup>ii</sup> 11.5430 13.3837	25.8927	$egin{pmatrix} + & 5 \ + & 7 \ - & 2 \ + & 15 \ + & 139 \end{matrix}$	$^{+1.6}_{-2.5}$	$egin{array}{c}2 \\ +3.0 \\ +1.8 \\3 \\ +.1 \end{array}$	40 46 0.61 40 41 16.99 40 27 32.97 40 29 36.31 40 42 50.88	$\begin{array}{c} -9\ 36.40 \\ -4\ 54.07 \\ +8\ 48.73 \\ +6\ 46.25 \\ -6\ 27.36 \end{array}$	$\begin{array}{rrr} - & 88 \\ - & 46 \\ + & 81 \\ + & 61 \\ - & 56 \end{array}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$-17 \\ -8 \\ +17 \\ +11 \\ -13$	6 8 7 8	23.15 23.06 23.39 23.36 22.96	10.9 10.0 9.9 36
Feb. <b>20</b> Feb.	1	2 3 2 3 4	$\mathbf{R}$	18.6097 12.8043 17.7277 12.0477 22.8067	22.7193 27.1183 21.8047 26.3877 19.2490	$egin{pmatrix} + & 23 \\ - & 5 \\ - & 9 \\ - & 97 \\ + & 32 \end{bmatrix}$	$-1.1 \\ -1.6$	-1.7 $-1.1$ $8$ $0$ $-1.0$	40 34 39.36 40 42 25.53 40 34 39.45 40 42 25.63 40 37 53.79	$\begin{array}{c} +1\ 43.90 \\ -6\ 1.67 \\ +1\ 42.99 \\ -6\ 2.09 \\ -1\ 29.98 \end{array}$	$\begin{array}{rrr} + & 15 \\ - & 53 \\ + & 15 \\ - & 53 \\ - & 13 \end{array}$	- 44 - 39 - 39 - 17 - 27	$egin{array}{c} + \ 4 \ -10 \ + \ 4 \ -10 \ - \ 3 \ \end{array}$	8 6 8 6 7	23.09 22.90 22.32 22.80 23.45	36.5 33.9 -34.1
	I	1 2 3 4 5		11.9477 17.6373 13.3587 23.2730 25.2697	27.3090 21.6820 27.6937 19.6704 17.0783	$     \begin{array}{r}        50 \\        12 \\         +-66 \\         +-46 \\         +-84     \end{array} $	+2.6	$egin{array}{c} +1.5 \ +1.7 \ + .6 \ + .8 \ - & 0 \end{array}$	40 42 51.08 40 34 39.60 40 42 25.81 40 37 54.00 40 32 54.94	$\begin{array}{c} -6\ 28.02 \\ +1\ 42.17 \\ -6\ 2.38 \\ -1\ 31.15 \\ +3\ 27.19 \end{array}$	$\begin{array}{rrrr} - & 56 \\ + & 15 \\ - & 53 \\ - & 13 \\ + & 30 \end{array}$	$egin{pmatrix} + & 41 \\ + & 63 \\ + & 30 \\ + & 23 \\ - & 15 \\ \end{matrix}$	$egin{array}{cccc} -13 \\ + & 4 \\ -10 \\ - & 3 \\ + & 7 \end{array}$	8 8 6 7	22.86 22.67 23.16 22.99 22.42	22.5 22.3
		6 7 8 9 10		18.7200	23.3610 29.5347 24.9213 23.4643 10.7993 <sup>ii</sup>	$egin{pmatrix} +&4\ +&201\ +&98\ +&40\ +&17 \end{bmatrix}$	$egin{array}{c} +2.1 \4 \ +1.5 \ +1.9 \2 \ \end{array}$	$egin{array}{c} +2.2 \\ +.3 \\ +1.7 \\ +2.4 \\ +.2 \end{array}$	40 33 35.57 40 43 14.49 40 33 45.21 40 38 41.30 40 27 23.05	$egin{array}{c} +2\ 47.00 \\ -6\ 50.47 \\ +2\ 36.94 \\ -2\ 18.43 \\ +8\ 59.13 \\ \end{array}$	$\begin{array}{rrr} + & 24 \\ - & 60 \\ + & 23 \\ - & 20 \\ + & 77 \end{array}$	$\begin{array}{c cccc} + & 62 \\ - & 1 \\ + & 47 \\ + & 61 \\ - & 0 \\ \end{array}$	$egin{array}{c} +5 \ -12 \ +5 \ -4 \ +20 \ \end{array}$	6 7 6 7 9	23.54 23.36 22.96 23.31 23.24	21.4 20.1
	II	1 2 3 4 5			24.8253 17.4540 18.2877 18.0977 20.1760	$egin{pmatrix} + & 91 \\ + & 2 \\ - & 10 \\ - & 15 \\ + & 1 \end{matrix}$	$egin{array}{c} + .9 \\ +3.6 \\ + .4 \\3 \\ +1.0 \end{array}$	$egin{array}{c} + .7 \\ +3.1 \\ +1.0 \\1 \\ +1.3 \end{array}$	40 39 5.44 40 38 32.84 40 35 19.78 40 37 14.81 40 36 29.47	$egin{array}{ccccc} -2&41.57 \ -2&10.66 \ +1&2.14 \ -&51.76 \ -&7.01 \ \end{array}$	$egin{array}{cccc} -& 24 \\ -& 19 \\ +& 9 \\ -& 8 \\ -& 1 \end{array}$	$egin{pmatrix} + & 23 \\ + & 98 \\ + & 21 \\ - & 6 \\ + & 33 \end{bmatrix}$	$     \begin{array}{r}         -5 \\         -3 \\         +2 \\         -2 \\         -0     \end{array} $	6 6 7 9	23.87 23.00 22.30 22.96 22.87	12.0 11.9 11.6
Feb. 24	Ι	6 7 10 1 2	D	9.7060 <sup>11</sup> 26.8507	8.2883 ii 25.5263 25.7673iv 11.4800 18.2153	-152 + 78	$egin{array}{c} + .9 \\0 \\ + .9 \\ + 2.6 \\ + .8 \end{array}$	$egin{array}{cccc}5 \\ + .8 \\3 \\ + 1.6 \\ + .6 \end{array}$	40 46 0.42 40 41 16.66 40 29 35.81 40 42 51.08 40 34 39.62	$egin{array}{c} -9 & 36.63 \\ -4 & 53.76 \\ +6 & 46.03 \\ -6 & 28.10 \\ +1 & 42.78 \\ \end{array}$	$\begin{array}{rrrr} - & 82 \\ - & 43 \\ + & 57 \\ - & 56 \\ + & 15 \end{array}$	+ 62	$     \begin{array}{r}       -17 \\       -8 \\       +11 \\       -13 \\       +4     \end{array} $	6 6 7 8 8	22.94 22.55 22.69 22.99 22.87	11.1 11.1 10.8
		3 4 5 6 7		19.1947 17.4353 23.3070	13.9393 22.7853 25.6563 16.6973 12.6203	$^{+140}_{+\ 31}_{+112}_{0}_{+108}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{cccc} + & .5 \\ + & .0 \\ + & .6 \\ + & .8 \\ + 3.0 \end{array}$	40 42 25.83 40 37 54.03 40 32 54.98 40 33 35.62 40 43 14.54	$egin{array}{cccc} -6 & 2.91 \ -1 & 30.80 \ +3 & 28.01 \ +2 & 47.01 \ -6 & 51.86 \ \end{array}$	$ \begin{array}{rrrr}  & 53 \\  & 13 \\  & 4 \\  & 4 \\  & 60 \end{array} $	+ 15	$     \begin{array}{r}       -10 \\       -3 \\       +7 \\       +5 \\       -12     \end{array} $	6 7 7 6 7	22.72 23.19 23.65 23.13 23.03	9.9

<sup>\*</sup> Very unsteady.

				Ī				Lev	els.			Correct	ions.			T.124. 3.	Ther-
1894.	St	tar.	P		Micro	neter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r	Mer	Latitude.	mom.
Feb. 24	I	8 9 10 1 1	R	2	0.1203 9.7563 <sup>ii</sup> 2.1157	15.8947 14.6297 31.0520iv 15.6620 22.5543	$     \begin{array}{r}       -54 \\       -127 \\       +3 \\       -63 \\       -1     \end{array} $	$\left  egin{array}{c} -0.2 \\ +1.4 \\ +2.0 \end{array} \right $	$ \begin{array}{c} + .1 \\3 \\ + .5 \\ + 2.6 \\ + .4 \end{array} $	40 33 45.28 40 38 41.37 40 27 23.12 40 39 5.52 40 38 32.91	$\begin{array}{r} +2\ 37.01 \\ -2\ 18.41 \\ +8\ 58.10 \\ -2\ 42.91 \\ -2\ 10.56 \end{array}$	$egin{pmatrix} + & 23 \\ - & 20 \\ + & 79 \\ - & 24 \\ - & 19 \end{bmatrix}$	$egin{array}{cccc} -&6 \ -&7 \ +&29 \ +&65 \ +&13 \end{array}$	$egin{pmatrix} +\ 5\ -\ 4\ +20\ -\ 5\ -\ 3 \end{bmatrix}$	6 7 9 6 6	40 36 22.57 22.72 22.59 23.03 22.32	9.0 9.0 8.6 5.7
		3 4 5 6 7		1111	9.6900 9.8770	21.1650 21.7287 19.5920 32.8920 <sup>iv</sup> 15.0877	$egin{bmatrix} -&2\\ +&12\\ -&2\\ +&37\\ +&90 \end{smallmatrix}$	$\begin{vmatrix} .0 \\ +1.4 \\8 \end{vmatrix}$	$egin{array}{c} + .6 \\ -1.0 \\ + .2 \\ + .5 \\ + .2 \end{array}$	40 35 19.85 40 37 14.86 40 36 29.51 40 46 0.45 40 41 16.68	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	+ 9 - 8 - 1 - 84 - 43	$egin{pmatrix} + & 25 \\ - & 13 \\ + & 25 \\ - & 6 \\ + & 5 \end{bmatrix}$	$egin{pmatrix} + & 2 \\ - & 2 \\ - & 0 \\ -17 \\ - & 8 \end{bmatrix}$	6 7 9 6 6	23.02 23.16 22.64 23.47 23.29	4.8 5.6
Feb. 26	IJ	8 10 1 1 2	D	1 2	32.1777 27.9983 <sup>iv</sup> 6.1750 22.2737 21.2810	11.2163 11.8680 i 22.5933 17.1343 18.7693	$egin{pmatrix} + & 14 \\ + & 2 \\ - & 35 \\ - & 13 \\ + & 1 \end{bmatrix}$	14	+ .8	40 27 32.61 40 29 35.81 40 39 5.67 40 38 33.04 40 35 19.95	<b>—2</b> 9.83	$egin{pmatrix} + & 77 \\ + & 59 \\ - & 24 \\ - & 19 \\ + & 9 \end{bmatrix}$	$egin{bmatrix} + & 47 \\ - & 84 \\ + & 9 \\ + & 50 \\ - & 34 \end{bmatrix}$		8 7 6 6 6	23.78 23.32 23.44 23.55 23.25	5.6 18.5 19.8
		2 6 6	5 3	1 5	20.4710 19.1880 32.4810 <sup>iv</sup> 13.1353 9.4977 <sup>ii</sup>	18.4177 19.4003 9.6937 i 24.7290 30.4437 i	-106	$\begin{array}{c c} -1.9 \\ + .1 \\5 \end{array}$	-2.3 -2.3 8 0 2	40 37 14.95 40 36 29.56 40 46 0.52 40 41 16.72 40 27 32.63	$ \begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	- 88 - 43	- 73 - 60 - 9 - 8 - 1	-17	6	23.33 23.68 23.59 23.51 22.94	19.3 18.1 17.8
Feb. 27	I	,	R 2 3	]	12.9470 <sup>ii</sup> 9.9840 19.5523 12.4127 22.0933	29.0973 <sup>1</sup> 25.3170 23.6423 26.7287 18.5230	$\begin{bmatrix} -34 \\ -318 \\ +57 \\ -58 \\ + \end{bmatrix}$	$\begin{vmatrix} +1.3 \\ -1.8 \\ -1.9 \end{vmatrix}$	$egin{pmatrix} + .1 \\ -2.0 \\2 \end{pmatrix}$	40 29 35.81 40 42 51.07 40 34 39.64 40 42 25.88 40 37 54 09	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} - & 56 \\ + & 15 \\ - & 53 \end{vmatrix}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} -13 \\ +4 \\ -10 \end{vmatrix}$	8 8 6	23.68 24.04 22.98 23.39 23.89	17.4 35.0 34.4
		. !	5 6 7 8		25.1000 15.7503 12.9633 16.8280 17.2663	16.8727 22.3553 29.1693 23.0747 22.7080		+2.1	$\begin{vmatrix} +2.3 \\9 \\ + .4 \end{vmatrix}$	40 43 14.66 40 33 45.45	$egin{array}{c c} +2 & 46.76 \\ -6 & 49.87 \\ +2 & 37.83 \\ \end{array}$	$\begin{vmatrix} + & 24 \\ - & 60 \\ + & 23 \end{vmatrix}$	$\begin{vmatrix} - & 32 \\ + & 18 \end{vmatrix}$	$ \begin{array}{c c} + 5 \\ -12 \\ + 5 \end{array} $	6 7 6	23.70 23.48 23.82 23.43 23.39	34.2 34.2 33.3
Mar 3			0 1 2 3 4	)	30.9857 <sup>ix</sup> 26.1917 22.5623 27.3787 17.9673	9.6273 10.8687 18.4893 13.0920 21.5317	$ \begin{array}{c c} -196 \\ + 18 \\ + 36 \end{array} $	9	$\begin{vmatrix}7 \\ +.7 \\ -1.9 \end{vmatrix}$	40 42 51.28 40 34 39.88 40 42 26.11	$egin{array}{c c} -6 & 26.68 \\ +1 & 42.96 \\ -6 & 1.07 \end{array}$	$ \begin{array}{c c} -56 \\ +15 \\ -53 \\ \end{array} $	$ \begin{array}{c c} - & 36 \\ - & 5 \\ - & 40 \end{array} $	$\begin{vmatrix} -18 \\ +4 \\ -10 \end{vmatrix}$	8   8 1   8 0   6	23.57 23.58 23.01 24.07 23.67	32.4 41.8 42.2
			5 6 7 8 9		16.2293 23.5043 28.2867 23.3337 22.8400	24.4457 16.8787 12.0503 17.0947 17.3580	- 2 + 1 + 2 + 1 + 1	$\begin{vmatrix} 2 & -1.6 \\ 5 & -1.6 \end{vmatrix}$	$\begin{bmatrix} -1.2 \\ -1.2 \\ -1.2 \end{bmatrix}$	40 33 36.05 40 43 14.97 40 33 45.88	$\left. egin{array}{c c} +2\ 47.44 \\ -6\ 50.32 \\ +2\ 37.67 \end{array} \right.$	$\begin{vmatrix} + & 24 \\ - & 60 \\ + & 23 \end{vmatrix}$	- 35 - 41 - 50	$\begin{vmatrix} + 5 \\ -18 \\ + 5 \end{vmatrix}$	6 7 6 6	23.33	41.2
	I		0 1 2 3 4		9.3023 23.4853 17.3407 18.4700 20.7110	30.6167 17.1203 22.4360 20.9377 22.7747	+ 1	$egin{array}{c c} 1 & -1.1 \\ 8 & -2.5 \\ 5 & -1.6 \\ 7 & -1.5 \\ 1 & -1.1 \\ \end{array}$	$\begin{vmatrix} -2.7 \\ 0 \\ -2.1 \\ 0 \end{vmatrix}$	40 39 5.90 40 38 33.20 40 35 20.00	$\begin{vmatrix} -2 & 40.87 \\ 3 & -2 & 8.78 \\ +1 & 2.34 \end{vmatrix}$	$\begin{vmatrix} - & 24 \\ 3 & - & 19 \\ 4 & + & 9 \end{vmatrix}$	$\begin{vmatrix} - & 77 \\ - & 48 \\ + & 51 \end{vmatrix}$	7   - 5 3   - 5 1   + 2	6	24.03 23.94 23.11	31.8
Maz 4	r.		5 7 8 0 1		20.6940 24.4587 31.2370 <sup>1</sup> 27.6473 <sup>1</sup> 13.1730	20.4500 12.8843 10.2683 11.5350 28.4967	13	$\begin{vmatrix} 3 & - & .5 \\ 6 & + & . \end{vmatrix}$	$egin{array}{c c} 3 &8 \ 1 & +.5 \ 2 & -2.1 \end{array}$	3 40 41 16.6° 3 40 27 32.5° 40 29 35.6°	$egin{array}{c c} 7 & -4 & 52.12 \ 4 & +8 & 49.84 \ 6 & +6 & 47.16 \ \end{array}$	$egin{array}{c c} 8 & - & 48 \ 4 & + & 81 \ 6 & + & 68 \ \end{array}$	$\begin{vmatrix} -15 \\ +65 \\ -65 \end{vmatrix}$		7 8 1 7	23.95 23.48 23.01	31.4
			2 3 4 5 6		18.0963 12.1870 21.4913 24.7823 16.3543	22.1630 26.5373 17.8877 16.5930 22.9547	$\begin{vmatrix} -7 \\ -4 \end{vmatrix}$	$ \begin{array}{c cccc} 5 & -1.5 \\ 9 & +1.5 \\ 9 & +1.5 \\ 81 & +2.5 \end{array} $	$\begin{vmatrix} 2 & + & 3 \\ 1 & - & 3 \\ 0 & + & 3 \end{vmatrix}$	3   40 42 26.19 1   40 37 54.49 9   40 32 55.4	$egin{array}{c c} 9 & -6 & 2.40 \ 2 & -1 & 31.03 \ 3 & +3 & 27.05 \end{array}$	$egin{array}{c c} -58 & -58 \ -18 \ +36 \end{array}$	$\begin{vmatrix} + & 25 \\ + & 16 \\ + & 1 \end{vmatrix}$	2 —19 3 — 1 +	$\begin{vmatrix} 0 & 6 \\ 3 & 7 \end{vmatrix}$	23.44 23.46 23.03	43.1 42.8

\* 20 s. late. Turned in azimuth; reduction to meridian—".37.

1001	6,		r	Minn	meter	C	Let	els.	1(8 + 8/)		Correc	tions.			Latitude.	Ther
1894.	Ste	ar.	P	Micro			<u>A</u>	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r	Mer		mom
Mar. 4		7 8 9 10 1		14.1423 17.7000 16.3290 32.6753iv 17.2530	30.3717 23.9150 21.8087 11.3727 ii 23.6493	$+319 \\ +43 \\ -45 \\ +23 \\ +26$	$\begin{vmatrix} + .4 \\5 \\ + .2 \end{vmatrix}$	$egin{array}{c} + .4 \\ + .8 \\1 \\ +1.5 \\ -1.8 \end{array}$	40 43 15.08 40 33 45.94 40 38 42.05 40 27 23.78 40 39 5.96	$\begin{array}{c} -6\ 50.88 \\ +2\ 37.15 \\ -2\ 18.35 \\ +8\ 58.32 \\ -2\ 41.68 \end{array}$	$egin{bmatrix} -&60\ +&23\ -&20\ +&83\ -&24 \end{bmatrix}$	$egin{bmatrix} -&38\ +&17\ -&10\ +&23\ -&52 \end{bmatrix}$	$-12 \\ +5 \\ -4 \\ +20 \\ -5$	7 6 7 9 6	0 7 7 7 40 36 23.17 23.60 23.43 23.45 23.53	42.4 41.4 35.2
		2 3 4 5 6		22.1860 22.0443 25.5347 19.6663 32.04171v	17.0473 19.5437 23.4763 19.9250 9.2307 ii	$ \begin{array}{c c} - 17 \\ + 16 \\ + 81 \\ - 1 \\ + 15 \end{array} $	$ \begin{array}{r r}9 \\4 \\ + .5 \end{array} $	$egin{array}{c} -1.3 \\ -8 \\ +.7 \\2 \\ +1.2 \\ \end{array}$	40 38 33.32 40 35 20.14 40 37 15.06 40 36 29.61 40 46 0.57	- 52.22 - 6.54	$egin{bmatrix} -&19 \\ +&9 \\ -&8 \\ -&1 \\ -&88 \end{bmatrix}$	$egin{bmatrix} -&39\ -&25\ +&2\ +&5\ +&31 \end{bmatrix}$	$egin{array}{c} -3 \\ +2 \\ -2 \\ 0 \\ -17 \end{array}$	6 6 7 9 6	22.97 23.28 22.83 23.20 23.47	
lar. 7	I	7 8 10 1 2	D	14.4090 10.3220 <sup>ii</sup> 13.4640 <sup>ii</sup> 27.2583 22.8897	26.0093 31.3090iv 29.6180iv 11.9153 18.7977		$\begin{bmatrix}6 \\ -3.1 \\ +.3 \end{bmatrix}$	$ \begin{array}{r} -1.2 \\1 \\ -4.2 \\ -1.2 \\ -3.1 \end{array} $	40 41 16.68 40 27 32.53 40 29 35.64 40 42 51.40 40 34 40.05	+648.04	$egin{bmatrix} -&43\ +&81\ +&63\ -&56\ +&15 \end{bmatrix}$	- 36 11 1.03 10 57	$-8 \\ +17 \\ +11 \\ -13 \\ +4$	6 8 7 8 8	22.72 23.78 23.46 23.15 23.22	34.4 34.5 48.
		3 4 5 6 7		27.7603 17.7070 15.6190 23.3730 28 5187	13.4370 21.2863 23.8547 16.7770 12.2763	$egin{bmatrix} + & 75 \ - & 16 \ - & 20 \ + & 4 \ + & 56 \ \end{matrix}$	$\begin{bmatrix} .0 \\6 \end{bmatrix}$	$egin{bmatrix} \dot{3} \\ -1.4 \\3 \\ + .3 \\9 \\ \hline \end{array}$	40 42 26.35 40 37 54.62 40 32 55.66 40 33 36.41 40 43 15.36	+246.68	$egin{bmatrix} -&53 \\ -&13 \\ +&30 \\ +&24 \\ -&60 \\ \hline \end{bmatrix}$	$egin{bmatrix} -&4\\ -&18\\ -&13\\ +&17\\ -&38 \end{bmatrix}$	$     \begin{array}{r}       -10 \\       -3 \\       +7 \\       +5 \\       -12     \end{array} $	6 7 6 7	23.64 23.95 24.02 23.61 23.78	48.0
Iar. 8	I	8 9 10 1 2	$\mathbf{R}$	23.3743 22.9567 9.6600 ii 13.3980 19.2647	17.1300 17.4810 30.9450iv 28.7070 23.3577	$egin{pmatrix} + & 14 \ + & 10 \ + & 3 \ + & 140 \ + & 47 \ \end{pmatrix}$	$\begin{array}{c c} -2.1 \\ + .3 \\ -1.6 \end{array}$	$ \begin{array}{c c} -1.8 \\ -2.3 \\ + .2 \\ -1.8 \\ -2.5 \end{array} $	40 33 46.27 40 38 42.40 40 27 24.12 40 42 51.40 40 34 40.06	$ \begin{vmatrix} +2 & 37.81 \\ -2 & 18.38 \\ +8 & 57.83 \\ -6 & 27.18 \\ +1 & 43.54 \end{vmatrix} $	$egin{pmatrix} + & 23 \\ - & 20 \\ + & 83 \\ - & 56 \\ + & 15 \end{bmatrix}$	$\begin{vmatrix} - & 63 \\ - & 63 \\ + & 7 \\ - & 48 \\ - & 75 \end{vmatrix}$	$ \begin{array}{r} +5 \\ -4 \\ +20 \\ -13 \\ +4 \end{array} $	9	23.79 23.22 23.14 23.13 23.13	47. 46. 44. 43.
		3 5 6 8 10		12.0620 24.3350 17.0317 19.9047 31.1900iv	26.3947 16.1427 23.6003 26.0780 9.9017	$egin{array}{c} -96 \ +18 \ +20 \ +171 \ +5 \ \end{array}$	$\begin{vmatrix} + .2 \\1 \\2 \end{vmatrix}$	$ \begin{array}{c c} -1.2 \\ + .5 \\ + .5 \\ 0 \\ + .1 \end{array} $	40 42 26.38 40 32 55.70 40 3 36.47 40 33 46.34 40 27 24.20	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$egin{bmatrix} -&53\ +&30\ +&24\ +&23\ +&83 \end{bmatrix}$	$egin{bmatrix} -&21\ +&10\ +&5\ -&3\ -&14 \end{bmatrix}$	$ \begin{array}{r} -10 \\ + 7 \\ + 5 \\ + 5 \\ + 20 \end{array} $	7 6 6	23.69 23.29 22.89 23.04 23.10	43. 41.
Iar. 12	II I	1 2 3 1 2		23.1260 18.3410 19.2300 27.3263 22.1663	16.6830 23.4847 21.7207 11.9827 18.0783	$ \begin{array}{r}  - & 5 \\  + & 41 \\  + & 10 \\  - & 45 \\  + & 2 \end{array} $	$\begin{vmatrix} -1.9 \\ -2 \\ + .4 \end{vmatrix}$	$ \begin{array}{c c}9 \\ -2.1 \\6 \\ .0 \\ -2.2 \end{array} $	40 39 6.45 40 38 33.78 40 35 20.54 40 42 51.29 40 34 40.00	$     \begin{array}{r}       -2 \ 10.07 \\       +1 \ 2.96 \\       -6 \ 27.58     \end{array} $	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{r r} - & 25 \\ - & 57 \\ - & 10 \\ + & 6 \\ - & 38 \end{array}$	$ \begin{array}{r} -5 \\ -3 \\ +2 \\ -13 \\ +4 \end{array} $	6 6 8	23.18 22.98 23.57 23.16 23.19	36 36 46
		$\frac{3}{4}$ $\frac{5}{6}$		27.5810 16.8717 15.5393 23.3553 28.6633	13.2363 20.4793 23.7237 16.7413 12.3950	$   \begin{array}{r}     + 58 \\     - 41 \\     - 25 \\     + 8 \\     + 75   \end{array} $	$\begin{vmatrix} + .5 \\ 5 + 1.5 \\ -1.5 \end{vmatrix}$	$egin{array}{c} +1.0 \\4 \\ +.5 \\9 \\ +.3 \end{array}$	40 37 54.65 40 32 55.73 40 33 36.53	$ \begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$egin{bmatrix} -&53 \\ -&13 \\ +&30 \\ +&24 \\ -&60 \\ \hline \end{bmatrix}$		$     \begin{array}{r r}     -10 \\     -3 \\     +7 \\     +5 \\     -12     \end{array} $	7 7 6	23.57 23.54 23.22 23.66 23.56	45 44 43
Mar. 13		8 9 10 6 7	R	23.2530 23.4223 9.0313 ii 8.8807 ii 25.9220	17.0620 17.9027 30.3100 <sup>1</sup> 31.7110 <sup>1</sup> 14.2980	v + 7	$\begin{vmatrix} + .8 \\ + .6 \end{vmatrix}$	1	40 38 42.66 40 27 24.39 40 46 1.37	$ \begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$  + 83 \\ - 88$	$\begin{vmatrix} + & 30 \\ - & 14 \end{vmatrix}$	$^{-4}_{+20}$	9 6	23.17 23.07 23.46 23.35 22.97	42
Mar. 14		8 9 10 1 2	R	32.0060iv 22.7030 27.6543 13.0573 18.7307	11.0540 i 19.1597 11.5673 28.3773 22.8137	$\begin{array}{c c} + 29 \\ + 14 \\ + 97 \end{array}$	1	$\begin{vmatrix} -1.5 \\9 \\ -1.2 \end{vmatrix}$	40 34 53.73 40 29 36.12 40 42 51.25	$egin{array}{c} +1 & 29.60 \\ +6 & 46.52 \\ -6 & 27.34 \\ \end{array}$	$\begin{vmatrix} + & 13 \\ + & 63 \\ - & 56 \end{vmatrix}$	<b>— 18</b>	$\begin{vmatrix} + & 3 \\ +11 \\ -13 \end{vmatrix}$	6 7 8	23.42 23.34 23.23 23.12 23.04	41
		3 4 5 6 7		12.8477 22.6177 24.7870 17.1053 13.2737	27.1957 19.0087 16.6140 23.6670 29.5447	+ 49 + 25 =  + 25 =	$egin{array}{cccccccccccccccccccccccccccccccccccc$	+ .7    +1.3	40 32 55.75 40 33 36.58	$\left  egin{array}{c} -1\ 31.26 \\ +3\ 26.64 \\ +2\ 45.86 \end{array} \right $	$\begin{vmatrix} - & 13 \\ + & 30 \\ + & 24 \end{vmatrix}$	$\begin{vmatrix} + & 33 \\ + & 4 \\ + & 37 \end{vmatrix}$	$\begin{bmatrix} -3 \\ +7 \\ +5 \end{bmatrix}$	7 7 6	23.32 23.64 22.87 23.16 23.58	

			_				Let	els.			Correc	tions.				Ther-
1894.	S	ar.	P	Micro	meter.	c	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom.
Mar. 14	I	8 9 10 1 1 2		17.4697 32.2447 <sup>iv</sup> 16.1143	24.1393 22.9923 10.9657 ii 22.5567 17.9513	$   \begin{array}{r}     + 57 \\     + 10 \\     + 18 \\     - 37 \\     + 26   \end{array} $	$\begin{array}{ c c c } + .2 \\1 \\ -1.4 \end{array}$	$ \begin{array}{r}2 \\ + .1 \\ + .6 \\ - 3.2 \\2 \end{array} $	40 33 46.58 40 38 42.74 40 27 24.47 40 39 7.19 40 38 34.50	$egin{array}{c} +2\ 36.58 \\ -2\ 19.57 \\ +8\ 57.71 \\ -2\ 42.69 \\ -2\ 11.47 \\ \hline \end{array}$	+ 23 - 20 + 83 - 24 - 19	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$   \begin{array}{r}     +5 \\     -4 \\     +20 \\     -5 \\     -3 \end{array} $	6 7 9 6 6	40 36 23.38 23.04 23.36 23 64 22.95	40.6 31.8
		3 4 5 6 7		20.2793 19.7080 31.2250 <sup>iv</sup>	18.5267 18.1707 20.0140 8.3673 ii 26.4743	$egin{bmatrix} - & 6 \ - & 14 \ - & 1 \ - & 5 \ + & 69 \ \end{matrix}$	$\left  { +  .7 \atop +1.4} \atop +1.9 \right $	$egin{bmatrix}2 \\2 \\ +1.2 \\ +1.1 \\9 \\ \hline \end{array}$	40 35 21.51 40 37 15.98 40 36 30.41 40 46 1.44 40 41 17.40	$\begin{array}{c} +1 & 1.87 \\ -53.24 \\ -7.73 \\ -9 & 37.55 \\ -4 & 54.14 \end{array}$	+ 9 - 8 - 1 - 88 - 43	$egin{bmatrix} -&23 \\ +&8 \\ +&38 \\ +&44 \\ -&27 \end{bmatrix}$	$     \begin{array}{r}       + 2 \\       - 2 \\       - 0 \\       -17 \\       - 8     \end{array} $	6 7 9 6 6	23.32 22.79 23.14 23.34 22.54	31.8 31.5
Mar. 16	I	8 9 10 3 4	D	17.8033 12.0830 ii	29.0070iv 21.3407 28.1620iv 13.7120 20.5867	$ \begin{array}{r r} -12 \\ -11 \\ +17 \\ +110 \\ -39 \end{array} $	$\begin{vmatrix} + .6 \\ +1.2 \\ 0 \end{vmatrix}$	$+1.3 \\ + .1 \\3 \\1 \\ +1.8$	40 27 33.12 40 34 53.78 40 29 36.17 40 42 26.39 40 37 54.73	$     \begin{array}{r}     +8 \ 49.13 \\     +1 \ 29.35 \\     +6 \ 46.32 \\     -6 \ 2.78 \\     -1 \ 32.18   \end{array} $	$     \begin{array}{r}       + 81 \\       + 13 \\       + 63 \\       - 53 \\       - 13     \end{array} $	$egin{pmatrix} + & 26 \\ + & 11 \\ + & 15 \\ - & 2 \\ + & 42 \end{bmatrix}$	$+17 \\ +3 \\ +11 \\ -10 \\ -3$	8 6 7 6 7	23.57 23.46 23.45 23.02 22.88	31.4 51.4 50.6
		5 6 7 8 9		23.6873 28.1300 23.1417	24.5183 17.1217 11.8323 16.9983 17.6530	$egin{pmatrix} + & 48 \\ + & 25 \\ - & 3 \\ + & 4 \\ + & 20 \\ \end{matrix}$	$\left  { +  .1 \atop -  .2 \atop +1.3 } \right $	$egin{array}{c} +1.5 \\ +1.1 \\ +4.1 \\ +1.1 \\ +1.3 \\ \end{array}$	40 32 55.83 40 33 36.67 40 43 15.65 40 33 46.71 40 38 42.88	$\begin{array}{c} +3\ 27.37 \\ +2\ 45.96 \\ -6\ 51.80 \\ +2\ 35.24 \\ -2\ 20.05 \end{array}$	$egin{pmatrix} + & 30 \\ + & 24 \\ - & 60 \\ + & 23 \\ - & 20 \end{bmatrix}$	$egin{pmatrix} + & 46 \\ + & 3 \\ + & 50 \\ + & 35 \\ + & 35 \end{pmatrix}$	$egin{pmatrix} + & 7 \\ + & 5 \\ -12 \\ + & 5 \\ - & 4 \end{bmatrix}$	7 6 7 6 7	24.10 23.01 23.70 22.64 23.01	50.40
	I	10 [ 1 2 3 4	R	24.6417 17.4323 18.8627	29.9680 <sup>i</sup> v 18.2297 22.5893 21.2823 21.4197	$ \begin{array}{c c} -8 \\ +81 \\ 0 \\ +2 \\ +6 \end{array} $	$ \begin{array}{r r} -5.0 \\ -1.8 \\ + .5 \end{array} $	$egin{array}{c} + .5 \\ -6.0 \\ -1.8 \\ + .6 \\ + .1 \end{array}$	40 27 24.59 40 39 7.38 40 38 34.70 40 35 21.36 40 37 16.12	$\begin{array}{c} +8\ 56.97 \\ -2\ 42.22 \\ -2\ 10.31 \\ +1\ 1.14 \\ -\ 53.25 \end{array}$	$\begin{array}{ c c c } + & 83 \\ - & 24 \\ - & 19 \\ + & 9 \\ - & 8 \end{array}$	$egin{array}{c} + & 7 \\ -1.57 \\ - & 52 \\ + & 15 \\ + & 7 \end{array}$	$     \begin{array}{r}     +20 \\     -5 \\     -3 \\     +2 \\     -2     \end{array} $	6	22.75 23.36 23.71 22.82 22.91	50.0 39.2 40.
		5 6 7 8 9		20.6257 7.8610 <sup>ii</sup> 25.1797 29.1447 <sup>iv</sup> 23.5340	20.3453 30.7110 <sup>iv</sup> 13.5477 8.2067 <sup>ii</sup> 19.9957	<b>— 64</b>	$ \begin{array}{c c} -1.3 \\9 \\ + .3 \end{array} $	$ \begin{array}{c c} -1.9 \\ -1.6 \\ -7 \\ 0 \\ +.3 \end{array} $	40 36 30.52 40 46 1.56 40 41 17.51 40 27 33.19 40 34 53.86	$\begin{array}{c} -7.09\\ -9\ 37\ 32\\ -4\ 53.75\\ +8\ 49.03\\ +1\ 29.54 \end{array}$	$egin{bmatrix} - & 1 \\ - & 92 \\ - & 43 \\ + & 85 \\ + & 13 \end{bmatrix}$	$ \begin{array}{c cccc} - & 51 \\ - & 41 \\ - & 23 \\ + & 5 \\ - & 4 \end{array} $	$egin{bmatrix} -0 \ -17 \ -8 \ +17 \ +3 \end{bmatrix}$	8	23.00 22.80 23.08 23.37 23.58	39.6
Mar. 17	I	10 3 4 5 6	R	28.8920 <sup>iv</sup> 12.8450 22.3157 23.0040 17.2253	12.8117 ii 27.1837 18.7087 14.7873 23.8267	$           \begin{array}{r}                                     $	$ \begin{array}{c}7 \\ -1.2 \\ -1.7 \end{array} $		40 29 36.24 40 42 26.44 40 37 54.78 40 32 55.89 40 33 36.74	$\begin{array}{c} +6\ 46.23 \\ -6\ 2.33 \\ -1\ 31.18 \\ +3\ 27.42 \\ +2\ 46.89 \end{array}$	$egin{pmatrix} + & 67 \\ - & 53 \\ - & 13 \\ + & 30 \\ + & 24 \end{bmatrix}$	- 33 - 9 - 21 - 30 - 68	$egin{array}{c} +12 \\ -10 \\ -3 \\ +7 \\ +5 \\ \hline \end{array}$	6 7 7	23.00 23.45 23.30 23.45 23.30	38.9 52.7 51.4
	I	7 8 9 10 I 1		12.1883 17.0213 17.5577 3 <b>f</b> .3827 <sup>iv</sup> 17.0610	28.4677 23.2087 23.0807 10.1000 i 23.5513	$\begin{array}{c c} + & 48 \\ + & 6 \\ + & 2 \\ + & 18 \end{array}$	$\begin{bmatrix}3 \\7 \\ -1.6 \end{bmatrix}$	$ \begin{array}{r}9 \\5 \\ -1.5 \\6 \\ +.3 \end{array} $	40 43 15.72 40 33 46.80 40 38 42.97 40 27 24.79 40 39 7.49	+857.79	$egin{bmatrix} -&60\ +&23\ -&20\ +&92\ -&24 \end{bmatrix}$	$egin{bmatrix} - & 7 \\ - & 12 \\ - & 31 \\ - & 33 \\ + & 2 \end{bmatrix}$	$     \begin{array}{r}       -12 \\       +5 \\       -4 \\       +20 \\       -5     \end{array} $	6 7 9	23.54 23.38 22.93 23.46 23.24	51.4 50.2 40.8
Mar. 18	-	2 3 4 5	R	22.2950 21.6007 12.5027 22.9040 23.4573	17.1033 19.1277 26.8743 19.2667 15.2570	- 13 + 8 - 40 + 34 - 46	$egin{array}{c c} -2.0 \\ +1.3 \\ +1.0 \end{array}$	+ .8	40 42 26.48 40 37 54.83	$ \begin{array}{rrrr} +1 & 2.51 \\ -6 & 3.03 \\ -1 & 31.99 \end{array} $	-53 $-13$	$\begin{vmatrix} + & 31 \\ + & 16 \end{vmatrix}$	—10 — 3	6 6 7	23.34 23.69 23.19 22.91 23.48	
<b>W</b>		6 7 8 9	3	16.7113 11.6183 17.3870 17.7930 30.7977iv	23.2780 27.9270 23.5400 23.3277 9.5630	+ 26	$\begin{array}{c c} +1.7 \\ +2.5 \end{array}$	$\begin{vmatrix} +1.6 \\ +1.6 \\ +1.7 \end{vmatrix}$	40 43 15.80 40 33 46.89	$egin{array}{c} -6 & 52.00 \\ +2 & 35.54 \\ -2 & 19.92 \\ \end{array}$	$\begin{vmatrix} - & 60 \\ + & 23 \\ - & 20 \end{vmatrix}$	$\begin{vmatrix} + & 48 \\ + & 60 \\ + & 28 \end{vmatrix}$	+12 + 5	6 6 1 7		56.9 56.2
Mar 19		I 1	8 1	24.9827 17.7423 18.5947 20.8263 19.1287	18.5033 22.9773 21.0397 18.6863 19.4450	_ {	$egin{array}{c} -1.1 \\ +2.2 \\ +1.7 \\ -1.3 \\ +1.1 \\ \end{array}$	+ .9    + .1	40 38 35.08 40 35 21.72 40 37 16.42	$egin{array}{c c} -2 & 12.31 \\ +1 & 1.77 \\ \hline - & 54.06 \end{array}$	$\begin{vmatrix} - & 19 \\ + & 8 \\ - & 8 \end{vmatrix}$	$\begin{vmatrix} + & 60 \\ + & 39 \\ - & 3 \end{vmatrix}$	- 8   + 8   - 8	6 2 6	23.21 24.04 22.30	44.9

	<b>.</b>	_			Le	vels.			Correc	tions.				Ther
1894.	Star.	P	Micrometer.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mon
<b>A</b> pl.	8 10		30.7133 <sup>iv</sup> 7.813i 13.6557 25.288' 8.3613 <sup>ii</sup> 29.309' 11.3377 <sup>ii</sup> 27.359' 17.0257 23.646	$egin{array}{c c} 7 & -53 \ -10 \ 3^{19} & +23 \ \end{array}$	8	<b>—1.4</b>	40 46 1.85 40 41 18.16 40 27 33.38 40 29 36.42 40 39 11.30	$\begin{array}{r} -9\ 38.58 \\ -4\ 53.80 \\ +8\ 49.29 \\ +6\ 44.89 \\ -2\ 47.33 \end{array}$	$ \begin{array}{rrr}  & 92 \\  & 41 \\  & + 84 \\  & + 67 \\  & & 23 \end{array} $	$egin{pmatrix} +&16\ -&44\ -&14\ +&22\ -&10 \end{bmatrix}$	$     \begin{array}{r}       -17 \\       -8 \\       +17 \\       +12 \\       -5     \end{array} $	6 6 8 7 6	40 36 22.40 23.49 23.62 [22.39] 23.65	45.4 35.9
Apl. 9	II 1 2 3 4		24.4007 17.3743 23.6810 21.2437 21.2707 18.998	7   + 40	$egin{array}{c} +3.3 \\ -1.3 \\ +1.3 \\ -1.6 \\9 \end{array}$	-1.0	40 38 38.60 40 39 11.95 40 38 39.26 40 35 24.77 40 37 20.12	$\begin{array}{c} -2\ 14.98 \\ -2\ 48.01 \\ -2\ 15.61 \\ +\ 57.18 \\ -\ 57.43 \end{array}$	$egin{bmatrix} -&19\ -&23\ -&19\ +&8\ -&8 \end{bmatrix}$	$\begin{array}{r} + & 62 \\ - & 34 \\ + & 42 \\ - & 43 \\ - & 40 \end{array}$	$egin{bmatrix} -3 \ -5 \ -3 \ +2 \ -2 \end{bmatrix}$		[24.08] 23.38 23.91 [21.68] 22.26	37.
	5 6 7 8 9		19.8137 32.2450iv 14.6820 8.6510 ii 18.1540 20.253 9.2276 26.5086 29.420 21.546	$\begin{vmatrix} 0 & 1 & 19 \\ 0 & + & 61 \\ 0 & - & 7 \end{vmatrix}$		$egin{bmatrix}9 \\ + .4 \\ + .8 \\ + 2.8 \\ - 2.0 \end{bmatrix}$	40 36 34.23 40 46 5.65 40 41 21.35 40 27 36.60 40 34 57.39	-458.97	$egin{bmatrix} -&2 \\ -&92 \\ -&41 \\ +&84 \\ +&11 \end{bmatrix}$	$\begin{array}{ c c c c c }\hline - & 18 \\ + & 27 \\ + & 7 \\ + & 71 \\ - & 51\end{array}$	$egin{array}{c} 0 \\ -17 \\ -8 \\ +17 \\ +3 \end{array}$	9 6 6 8 6	23.02 23.23 22.02 23.17 22.79	36.
lpl. 13	10 II 1 2 3 4	R	12.7983 il 28.728 23.8887 17.200 17.8200 23.203 20.4647 22.692 20.5203 22.789	$egin{array}{c c} 0 & + & 32 \ 7 & + & 24 \ 7 & + & 30 \end{array}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	+ .8 2	40 29 39.75 40 39 12.69 40 38 40.01 40 35 26.51 40 37 20.80	-249.09	$egin{bmatrix} + & 67 \\ - & 23 \\ - & 19 \\ + & 8 \\ - & 8 \end{bmatrix}$	$egin{pmatrix} + & 28 \\ + & 26 \\ - & 2 \\ + & 28 \\ - & 27 \end{bmatrix}$	$     \begin{array}{r}       +12 \\       -5 \\       -3 \\       +2 \\       -2     \end{array} $	6 6 6	23.34 23.64 23.74 23.32 23.09	36. 42. 41. 40.
	5 6 7 8 9		21.2203 8.8127 <sup>ii</sup> 31.828 26.4750 31.7503 <sup>iv</sup> 10.960 23.0857 19.692	$egin{pmatrix} 7^{ m iv} & + & 8 \ 0 & + & 61 \ 0 & + & 9 \ \end{bmatrix}$	$ \begin{array}{c c} -2.0 \\ -1.0 \\ -1.3 \end{array} $	9 -2.0	40 41 22.06 40 27 37.21	<b>—9 41.58</b>	$ \begin{vmatrix} - & 2 \\ - & 92 \\ - & 41 \\ + & 84 \\ + & 11 \end{vmatrix} $	<b>— 41</b>	<b>—</b> 8	6 6 8	23.17 23.34 23.57 23.38 23.49	40
pl. 14	10 II 1 2 3 4	D	28.3920 <sup>1</sup> v 12.481 16.2990 22.997 22.6800 17.285 20.1590 17.913 20.4247 18.132	$\begin{bmatrix} 0 & -29 \\ 3 & -6 \\ 0 & -18 \end{bmatrix}$	$\begin{array}{c c} -1.3 \\ -2.3 \end{array}$	<b>—1.9</b>	40 39 12.89 40 38 40.22		$egin{pmatrix} + & 67 \\ - & 23 \\ - & 19 \\ + & 8 \\ - & 8 \end{bmatrix}$	$\begin{array}{ c c c c c c } - & 11 \\ - & 3 \\ - & 46 \\ - & 61 \\ - & 22 \end{array}$	$-5 \\ -3$	6 6 6	23.16 23.45 23.29 22.98 22.84	40 43 43 42
	5 6 7 8 9		18,4033 29,8033iv 13,4940 8,1900 ii 28,964 16,9380 20,304	7 ii — 44 0 — 70 3 iv — 9	$\begin{array}{c} -1.9 \\ -1.5 \end{array}$	$ \begin{array}{c c} -2.0 \\ -1.0 \\9 \end{array} $	40 41 22.24 40 27 37.38	$     \begin{array}{r r}     -9 & 41.03 \\     -4 & 58.81 \\     +8 & 44.89   \end{array} $	$egin{bmatrix} -&2\ -&92\ -&41\ +&84\ +&11 \end{bmatrix}$	<b>— 4</b> 3	$     \begin{array}{r}       -17 \\       -8 \\       +17     \end{array} $	6 6 8	23.09 24.23 22.57 23.01 23.79	43
tpl. 15	10 II 1 2 3 4	R	11.9267 ii 27.826 22.7383   16.006 17.4240   22.835 18.5767   20.784 18.1947   20.502	$\begin{bmatrix} 7 & -37 \\ -57 & -6 \end{bmatrix}$	$\begin{array}{c c}2 \\ +1.6 \end{array}$	$\begin{vmatrix} + & .1 \\ - & 9 \\ + & .4 \end{vmatrix}$	40 38 40.44 40 35 26.93	$egin{array}{c} -2\ 50.00 \ -2\ 16.73 \ +\ 55.78 \ \end{array}$	$egin{bmatrix} + & 67 \\ - & 23 \\ - & 19 \\ + & 8 \\ - & 8 \end{bmatrix}$	+ 30	$     \begin{array}{r}         -5 \\         -3 \\         +2     \end{array} $	6 6	23.16 22.91 23.41 23.17 22.43	42 46 45
	5 6 7 8 9		22.2370 9.0410 <sup>11</sup> 32.073 26.4163 14.607 82.0403 <sup>1</sup> v 11.275 22.0397 19.670	$egin{pmatrix} 0 & + & 58 \ 0 & + & 10 \end{bmatrix}$	B — .6	$-1.7 \\ -2.0$	40 36 35.23 40 46 6.78 40 41 22.45 40 27 37:57 40 34 58.44	-458.52  +844.71	$egin{bmatrix} - & 2 \\ - & 93 \\ - & 41 \\ + & 84 \\ + & 11 \end{bmatrix}$	- 22 - 31	$-17 \\ -8 \\ +17$	6 6 8	23.13 23.51 23.19 22.80 23.21	45 45 45
pl.	II 1 3 II 1 2	D D	27.1493iv 17.3667 24.107 21.0187 18.792 16.1913 22.978 22.0627 16.561	$egin{pmatrix} 0 & + & 48 \ 7 & - & 8 \ - & 25 \ \end{bmatrix}$	$egin{array}{c} +1.1 \\ +2.1 \\ -1.7 \\ 6 \\ +.4 \\ +1.4 \\ \end{array}$	$\begin{array}{ c c c } +2.0 \\ -1.6 \\4 \end{array}$	40 39 13.37 40 35 27.17 40 39 14.91	$egin{array}{c} -2\ 50.42 \\ +\ 56.24 \\ -2\ 51.43 \end{array}$	$egin{pmatrix} + & 54 \\ - & 23 \\ + & 8 \\ - & 23 \\ - & 19 \end{bmatrix}$	$\begin{array}{r r} + & 59 \\ - & 47 \end{array}$	$ \begin{array}{c c} -5 \\ +2 \\ -5 \end{array} $	6	23.12 23.32 23.10 23.27 23.49	44 51 48
	3 4 5 6 7	l	21.3607 19.230 21.0953 18.718 19.1037 19.657 32.5337 <sup>i</sup> v 9.434 14.0163 25.912	$egin{array}{c c} 0 & - & 3 \ - & 2 \ 1 & + & 26 \ \end{array}$	$egin{array}{c} + .6 \\3 \\ + .2 \\ + .1 \\9 \end{array}$	$\begin{vmatrix}4 \\ + .1 \\1 \end{vmatrix}$	40 37 22.89 40 36 36.88 40 46 8.60	$ \begin{array}{c c} -1 & 0.06 \\ - & 13.99 \\ -9 & 43.72 \end{array} $	$ \begin{array}{c c} + & 8 \\ - & 8 \\ - & 2 \\ - & 79 \\ - & 41 \end{array} $	$\begin{bmatrix} - & 10 \\ + & 4 \\ - & 0 \end{bmatrix}$	-17	9 6	22.89 22.70 23.00 23.98 22.98	48 47 47

<sup>\*</sup> Light poor. |

1001	1	····		36.			Let	vels.	1/5 : 5:		Correc	tions.			T	Ther.
1894.	2	itar.	P	Micro	ometer.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom
Apl. 22 Apl. 24	II	[ 8 9 10 [ 1 2		17.6487	28.6263 <sup>iv</sup> 20.9367 28.0073 <sup>iv</sup> 15.4890 24.1213	21	$ \begin{array}{c c}3 \\8 \\ + .9 \end{array} $	$ \begin{array}{r}8 \\ -1.2 \\6 \\ +.2 \\ -1.7 \end{array} $	0 27 39.18 40 27 39.18 40 35 0.18 40 29 42.58 40 39 15.34 40 38 42.72	$\begin{array}{r} +8\ 43.80 \\ +1\ 23.03 \\ +6\ 39.96 \\ -2\ 52.43 \\ -2\ 18.91 \end{array}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	- 25 - 20 - 20 + 17 - 51	$+17 \\ +3 \\ +12 \\ -5 \\ -3$	8 6 7 6 6	0 36 23.82 23.21 23.20 22.86 23.14	47.4 48.0
		3 4 5 6 7		18.8923 19.5477 20.4947 8.9780 ii 27.7393	21.0030 21.9553 19.9217 32.1273iv 15.8523	$     \begin{array}{r}                                     $	$+ .3 \\6$	$egin{array}{c} +1.4 \\ +1.2 \\ + .3 \\ + .2 \\6 \\ \hline \end{array}$	40 35 29.22 40 37.23.32 40 36 37.29 40 46 9.07 40 41 24.70	$\begin{array}{c} + & 53.33 \\ -1 & 0.87 \\ - & 14.48 \\ -9 & 44.97 \\ -5 & 0.81 \end{array}$	$ \begin{array}{ccccc} + & 8 \\ - & 8 \\ - & 2 \\ - & 92 \\ - & 41 \end{array} $	$egin{pmatrix} + & 37 \\ + & 26 \\ + & 9 \\ - & 07 \\ - & 11 \end{bmatrix}$	$egin{pmatrix} + & 2 & & \ - & 2 & & \ - & 0 & & \ -17 & & & \ \end{array}$	6 7 9 6 6	23.08 22.68 22.97 23.00 23.35	47.6 46.9
Apl. 25	I	8 9 10 1 2	D	22.9960	10.2933 ii 19.7480 10.8980 ii 24.4247 17.2567	$egin{pmatrix} + & 3 \ + & 38 \ + & 45 \ + & 62 \ + & 1 \end{bmatrix}$	-1.5 $8$ $3$ $-1.1$ $+.3$	$ \begin{vmatrix} .0 \\ + .7 \\0 \\5 \\ .0 \end{vmatrix} $	40 27 39.64 40 35 0.65 40 29 43.05 40 39 15.55 40 38 42.98	$egin{array}{c} +8\ 42.32 \\ +1\ 22.17 \\ +6\ 39.16 \\ -2\ 51.65 \\ -2\ 19.36 \\ \end{array}$	+ 84 + 11 + 67 - 23 - 19	<b>— 4</b>	$+17 \\ +3 \\ +11 \\ -5 \\ -3$	8 6 7 6 6	22.81 22.98 23.01 23.44 23.51	47.3 51.4
		3 4 5 6 7		20.6180 21.3527 19.9047 32.0287 <sup>iv</sup> 13.8960	18.5010 18.9620 20.4987 8.8947 ii 25.8657	$egin{pmatrix} - & 8 \ + & 4 \ + & 2 \ + & 12 \ - & 12 \ \end{pmatrix}$	$     \begin{array}{r}       -1.8 \\       -1.5 \\      7 \\       +.6 \\       +1.6     \end{array} $	$ \begin{array}{r} -1.2 \\ -2.2 \\ -3 \\7 \\ +.4 \end{array} $	40 35 29.44 40 37 23.51 40 36 37.48 40 46 9.28 40 41 24.93	$egin{array}{cccc} +&53.47 \ -1&0.42 \ -&15.01 \ -9&44.57 \ -5&2.42 \ \end{array}$	$\begin{array}{cccc} + & 8 \\ - & 8 \\ - & 2 \\ - & 92 \\ - & 41 \end{array}$	$egin{array}{cccc} -&44 \ -&52 \ -&15 \ &0 \ +&31 \ \end{array}$	$egin{pmatrix} + & 2 \\ - & 2 \\ - & 0 \\ - & 17 \\ - & 8 \end{matrix}$	6 7 9 6 6	22.63 22.54 22.39 23.68 22.39	51.0 49.6 50.1
Apl. 26	I	8 9 10 1 1 2	R	19.3397	28.8037iv 22.5777 28.3727iv 16.3257 22.6257	$     \begin{array}{r}                                     $	$^{+.8}_{+2.2}_{+1.2}_{+2.7}_{+.9}$	$ \begin{array}{c}2 \\ +1.1 \\5 \\ +2.2 \\ +1.9 \end{array} $	40 27 39.83 40 35 0.86 40 29 43.28 40 39 15.75 40 38 43.14	$egin{array}{c} +8\ 42.69 \\ +1\ 21.88 \\ +6\ 39.03 \\ -2\ 52.71 \\ -2\ 20.42 \\ \end{array}$	$\begin{array}{rrr} + & 84 \\ + & 11 \\ + & 67 \\ - & 23 \\ - & 19 \end{array}$	$egin{pmatrix} + & 10 \ + & 49 \ + & 12 \ + & 71 \ + & 39 \ \end{pmatrix}$	$+17 \\ +3 \\ +11 \\ -5 \\ -3$	8 6 7 6 6	23.71 23.43 23.28 23.53 22.95	49.6 56.3
		3 4 5 6 7		18.3563 19.3673 20.2477 9.0603 11 26.5730	20.4947 21.7727 19.6683 32.2220iv 14.6500	$ \begin{array}{r} -10 \\ +11 \\ 0 \\ +18 \\ +63 \end{array} $	-1.7 $7$ $0$ $4$ $1$	$ \begin{array}{r}9 \\ +.2 \\1 \\ +.1 \\7 \end{array} $	40 35 29.65 40 37 23.71 40 36 37.67 40 46 9.49 40 41 25.13	$\begin{array}{c} + & 54.01 \\ -1 & 0.81 \\ - & 14.64 \\ -9 & 45.29 \\ -5 & 1.42 \end{array}$	$ \begin{array}{cccc} + & 8 \\ - & 8 \\ - & 2 \\ - & 92 \\ - & 41 \end{array} $	- 37 - 8 - 2 - 5 - 11	$^{+\ 2}_{-\ 0}_{0}_{-17}$	6 7 9 6 6	23.45 22.79 23.08 23.12 23.17	56.2 55.9 55.0
Apl. 30	I	8 9 10 1 1 2	D	21.8613	18.5927	$egin{pmatrix} + & 6 \ + & 6 \ - & 12 \ + & 5 \ - & 64 \end{bmatrix}$	$ \begin{array}{r}5 \\ -2.8 \\5 \\ +.1 \\ -1.1 \end{array} $	$ \begin{array}{r} .0 \\ -1.4 \\5 \\7 \\2 \end{array} $	40 27 40.02 40 35 1.06 40 29 43.48 40 39 16.68 40 38 44.00	$egin{array}{c} +8\ 42.62 \\ +1\ 22.60 \\ +6\ 38.93 \\ -2\ 52.90 \\ -2\ 20.39 \\ \end{array}$	$\begin{array}{rrr} + & 84 \\ + & 11 \\ + & 67 \\ - & 23 \\ - & 19 \end{array}$	$egin{array}{cccc} -&8 \ -&63 \ -&15 \ -&7 \ +&20 \ \end{array}$	$+17 \\ +3 \\ +11 \\ -5 \\ -3$	8 6 7 6 6	23.65 23.23 23.11 23.49 23.65	54.9 55.6
		3 4 5 6 7		20.3073 19.2743 20.4890 32.2800 <sup>iv</sup> 15.3400	18.2343 16.8100 21.0930 9.1050 ii 27.3027	$egin{array}{cccc} -& 13 \ -& 42 \ +& 3 \ +& 19 \ +& 137 \end{array}$	$ \begin{array}{r} -1.4 \\ + .5 \\ -2.0 \\ + .8 \\ -1.3 \end{array} $	$ \begin{array}{r} -1.0 \\2 \\4 \\6 \\0 \end{array} $	40 35 30.61 40 37 24.60 40 36 38.52 40 46 10.45 40 41 26.08	$\begin{array}{c} + & 52.35 \\ -1 & 2.16 \\ - & 15.27 \\ -9 & 45.62 \\ -5 & 2.61 \end{array}$	$ \begin{array}{cccc} + & 8 \\ - & 8 \\ - & 2 \\ - & 96 \\ - & 41 \end{array} $	$ \begin{array}{cccc}  & 36 \\  + & 5 \\  \hline  & 37 \\  + & 5 \\  \hline  & 20 \end{array} $	$egin{pmatrix} + & 2 & \ - & 2 & \ 0 & \ -17 & \ - & 9 \end{matrix}$	6 7 9 6 6	22.76 22.46 22.95 23.81 22.83	55.4 55.2 54.4
May 8	II	8 9 10 1 2	$\mathbf{R}$	19.3413 13.4317 ii 23.3170	29.1860iv	$^{+27}_{-40}$	$     \begin{array}{r}       -2.2 \\      8 \\       .0 \\      6 \\       +.4     \end{array} $	$-0.6 \\ -1.7 \\ -0.6 \\ -0.3 \\ +0.5$	40 27 40.87 40 35 1.98 40 29 45.42 40 39 18.67 40 38 46.13	$egin{array}{c} +8\ 41.85 \\ +1\ 21.83 \\ +6\ 37.97 \\ -2\ 54.86 \\ -2\ 23.30 \\ \end{array}$	$   \begin{array}{ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccc}  & 33 \\  & 7 \\  & 14 \end{array} $	$egin{array}{c} +17 \ +3 \ +12 \ -5 \ -4 \ \end{array}$	8 6 7 6 6	23.42 23.68 [24.22] 23.46 22.80	
		3 4 5 6 7		22.6500 8.4567 ii	20.2837 22.0697 21.9620 31.7183 <sup>iv</sup> 14.8150	+ 17	$ \begin{array}{r}2 \\ -1.9 \\7 \\3 \\ -1.3 \end{array} $	$\begin{array}{c}7 \\ -1.0 \\9 \\ -1.5 \\ -1.7 \end{array}$	40 35 32.70 40 37 26.58 40 36 40.45 40 46 12.61 40 41 28.27	$\begin{array}{c} + & 50.34 \\ -1 & 3.48 \\ - & 17.42 \\ -9 & 47.77 \\ -5 & 4.82 \end{array}$	$\begin{array}{cccc} + & 6 \\ - & 8 \\ - & 3 \\ - & 91 \\ - & 38 \end{array}$	$-\begin{array}{c c} - & 44 \\ - & 22 \end{array}$	$egin{pmatrix} + & 2 \ - & 2 \ - & 1 \ - & 17 \ - & 9 \ \end{bmatrix}$	6 7 9 6 6	23.06 22.63 22.86 23.58 22.62	62.3 60.6
	11	8 9 10 II 1 2	$\mathbf{R}$	$22.4277 \ 27.4007^{iv} \ 30.1853$	10.3823 <sup>ii</sup> 19.2827 11.7337 <sup>ii</sup>	$^{+\ 20}_{+\ 23}_{+\ 17}_{+319}$	$-1.5 \\ -1.2 \\ -2.1 \\ + .3$	-0.6 $-1.8$ $-2.0$ $+1.1$ $-0.5$	40 27 42.89 40 35 4.16 40 29 46.66 40 43 0.39 40 46 36.22	$   \begin{array}{r}     +8 \ 39.63 \\     +1 \ 19.52 \\     +6 \ 35.91 \\     -6 \ 36.84 \\     -10 \ 11.62   \end{array} $	$   \begin{array}{cccc}     + & 81 \\     + & 9 \\     + & 66 \\     - & 49 \\     - & 93   \end{array} $	$ \begin{array}{c c} - & 41 \\ - & 57 \\ + & 19 \end{array} $	$+17 \\ +3 \\ +12 \\ -14 \\ -23$	10	23.27 23.45 22.85 23.21 23.39	59.2 59.6 59.3 59.4

<sup>\*</sup>Mistake in micrometer reading.

1894.	Sim	.	P	16:	meter	c	Let	els.	1(8   31)		Correct	ions.	,	ı	Latitude.	Ther
	Star		P	Micro	meter.	U	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latterac.	mom.
May 8	III	3 4 5 6 7			32.8270iv 33.4407iv 15.1167 22.3030 19.7547	$     \begin{array}{r}       + 5 \\       + 39 \\       + 107 \\       + 20 \\       + 3     \end{array} $	$\begin{array}{c}3 \\ +.3 \\ -2.3 \end{array}$	+1.6 $8$ $+.2$ $9$ $-1.1$	0 25 39.75 40 25 45.23 40 31 22.94 40 37 46.62 40 36 54.43	$+10\ 37.21$	$\begin{vmatrix} + & 95 \\ + & 37 \\ - & 11 \end{vmatrix}$	+ 74 15 + 7 48 11	$^{+18}_{+19}_{+10}_{-3}_{-1}$	6 6 7 6 6	0 36 23.58 23.49 22.80 22.80 22.84	59.8 59.7
May 9	II	8 9 1 2 3		17.2300 14.0110 16.0677 21.8637 21.3430	24.2283 27.4010 23.0190 16.2227 19.3777	$egin{pmatrix} + & 45 \\ + & 83 \\ - & 28 \\ - & 48 \\ + & 6 \end{matrix}$	$ \begin{array}{c} -2.4 \\ -1.1 \\6 \end{array} $	-1.1 5 8 -1.4 3	40 33 26.19 40 42 2.44 40 39 18.86 40 38 46.33 40 35 32.91	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{rrr}  & 43 \\  & 22 \\  & 18 \end{array} $	- 4 - 45 - 27 - 27 - 20	$     \begin{array}{r}     +5 \\     -10 \\     -5 \\     -4 \\     +2     \end{array} $	6 6 6 6	23.41 22.98 23.81 23.49 22.52	60.0 61.1 60.3
		4 5 6 7 8		31.0970iv 12.8997	18.6897 19.7443 7.7687 ii 24.9987 29.0700 iv	—111	$\begin{array}{c}3 \\ +.1 \\ .0 \end{array}$	$\left  { +  .4 \atop -  .1 \atop +  .7 \atop +  .9 \atop -  .2 } \right $	40 37 26.77 40 36 40.64 40 46 12.83 40 41 28.49 40 27 43.10	<b>— 5 5.4</b> 3	$ \begin{array}{rrr}     - & 3 \\     - & 91 \\     - & 38 \end{array} $	$egin{bmatrix} - & 6 \ - & 7 \ + & 10 \ + & 12 \ - & 1 \ \end{pmatrix}$	$egin{array}{c} -2 \ -1 \ -17 \ -9 \ +17 \ \end{array}$	7 9 6 6 8	22.22 22.52 22.50 22.77 23.40	60.3
	III	9 10 2 3 4	D	16.9943 11.9263 ii 31.8513iv 34.0837iv 32.3840iv	8.6847 ii	-11 + 64	$ \begin{array}{r} -4.3 \\ +1.8 \\ -1.3 \end{array} $	$ \begin{array}{r} -1.9 \\ -4.8 \\ + .2 \\2 \\ -1.2 \end{array} $	40 35 4.38 40 29 46.89 40 46 36.42 40 25 39.98 40 25 45.45	$egin{array}{c} + & 636.54 \\ -1012.51 \\ +1041.93 \end{array}$	$\begin{array}{ c c c c c } + & 66 \\ - & 93 \\ + & 96 \end{array}$	$egin{array}{c} -27 \\ -1.29 \\ +31 \\ -23 \\ -30 \\ \end{array}$	$egin{array}{c} +\ 3\ +12\ -23\ +18\ +19 \end{array}$	6 7 11 6 6	23.41 22.99 23.17 22.88 23.49	58.8 <i>a</i> 58.8 55.8
3.r		5 6 7 8 9		12.4697 21.7573 18.8593 23.9620 25.8147	24.3417 18.4613 20.1053 16.9920 12.4163	$-165 \\ + 3 \\ - 6 \\ - 30 \\ -104$	$-1.5 \\ -0.0$	$ \begin{array}{c c} -2.6 \\ -2.9 \\ -2.2 \\ +2.1 \end{array} $	40 31 23.15 40 37 46.83 40 36 54.64 40 33 26.40 40 42 2.64	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c c} - & 11 \\ - & 4 \\ + & 21 \end{array} $	- 38 - 52 - 27 + 2 - 42	$     \begin{array}{r}       +10 \\       -3 \\       -1 \\       +5 \\       -10     \end{array} $	7 6 6 6 6	22.87 22.94 22.91 22.93 23.47	55.2 54.4 54.4 52.8
Мау 10	II	1 2 3 4 5	R	23.6210 17.3460 18.9637 20.3460 20.8237	16.6440 23.0210 20.9280 22.8757 20.0850	$egin{pmatrix} + & 8 \\ + & 8 \\ - & 1 \\ + & 35 \\ + & 3 \end{bmatrix}$	$\begin{array}{c c}1 \\ + .7 \\9 \end{array}$	$egin{array}{c} -1.2 \\ + .1 \\ + .2 \\2 \\ .0 \end{array}$	40 39 19 05 40 38 46.53 40 35 33.12 40 37 26.97 40 36 40.82	$egin{pmatrix} -&2&23.41\ +&49.63\ -&1&4.01 \end{bmatrix}$	$\begin{array}{c c} - & 18 \\ + & 6 \\ - & 8 \end{array}$	$egin{pmatrix} + & 37 & 0 \ + & 13 \ - & 14 \ + & 25 \end{bmatrix}$	$egin{bmatrix} -5 \ -4 \ +2 \ -2 \ -1 \end{bmatrix}$	6 6 7 9	22.90 22.96 23.02 22.79 22.45	55.2
	ш	7 8 9 10 1	$\mathbf{R}$	22.1440	13.3513 10.5677 ii 19.0487 12.4063 ii 12.0727	$\perp$ 16	$\begin{vmatrix} -1.7 \\4 \\ + .8 \end{vmatrix}$	$egin{array}{c} +1.6 \\6 \\ + .6 \\ + .3 \\ .0 \\ \end{array}$	40 41 28.72 40 27 43.30 40 35 4.61 40 29 47.12 40 43 0.79	$egin{array}{c} + & 8 & 39.94 \ + & 1 & 18.25 \ + & 6 & 34.57 \ \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{bmatrix} + & 66 \\ - & 34 \\ + & 1 \\ - & 8 \\ - & 38 \end{bmatrix}$	$     \begin{array}{r}       -9 \\       +17 \\       +3 \\       +12 \\       -14     \end{array} $	7	23.38 23.96 23.05 22.46 23.09	55.3 54.4 55.0 50.8
Мау 12		2 3 1 2 3	D	8.8860 ii 8.3597 ii 16.2333 23.0143 20.3680	33.0887iv 33.7587iv 23.2220 17.3070 18.4444		$\begin{vmatrix} +1.2 \\ + .5 \\ + .9 \end{vmatrix}$	$ \begin{array}{c c} -1.5 \\ -3 \\ +.2 \\ +2.1 \\ +1.7 \end{array} $	40 25 40.20 40 39 19.46 40 38 46.97	$ \begin{array}{r} +10 \ 41.90 \\ -256.55 \\ -224.19 \end{array} $	$\begin{array}{cccc} + & 96 \\ - & 22 \\ - & 18 \end{array}$	$ \begin{array}{r}  - 49 \\  + 15 \\  + 10 \\  + 41 \\  + 44 \end{array} $		6 6 6	23.43 23.45 22.80 23.03 22.73	52.1 <i>d</i> 60.9
		4 5 6 7 8		21.5167 19.3997 31.5363iv 14.3627 8.2097 ii	18.9430 20.1383 8.2363 ii 26.4617 28.7350 iv	$ \begin{array}{c c} + & 6 \\ - & 1 \\ - & 3 \\ + & 39 \\ - & 7 \end{array} $	$\begin{vmatrix} + & .1 \\ - & .4 \\ - & .2 \end{vmatrix}$	$\begin{vmatrix}1 \\ -1.0 \\ + .5 \end{vmatrix}$	40 46 13.50 40 41 29.18	- 18.66 $-$ 9 48.73 $-$ 5 5.81	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	+ 4	$egin{array}{cccccccccccccccccccccccccccccccccccc$	7 9 6 6 8	22.23 22.62 23.56 23.00 23.12	60.9
	ш	9 10 1 2 3	D	17.2607 11.6847 ii 11.5583 29.5320iv 32.4390iv	27.2763 <sup>iv</sup> 27.2940 5.2850 <sup>ii</sup>	$^{+\ 20}_{-\ 80}$	<b>—</b> .6	$\left  { +  .3 \atop -  .6 \atop -  .2 } \right $	40 29 47.60 40 43 1.18	$ \begin{array}{r} + 634.01 \\ - 637.40 \\ - 1012.42 \end{array} $	$\begin{array}{cccc} + & 66 \\ - & 49 \\ - & 93 \end{array}$	$\begin{bmatrix} - & 20 \\ - & 11 \end{bmatrix}$	$^{+12}_{-14}$ $^{-23}$	7 10 11	23.08 22.66 23.05 23.40 22.81	58.6 55.0 56.9
		4 5 6 7 8		22.1813 $19.6490$	24.5213 18.8423 20.9423	$ \begin{array}{r} -143 \\ + 15 \\ + 3 \end{array} $	$ \begin{array}{c c} -1.9 \\8 \\ +1.6 \\5 \\9 \end{array} $	$+ \tilde{1}$	40 25 46.08 40 31 23.73 40 37 47.43 40 36 55.22 40 33 26.97	$ \begin{array}{r} + 458.77 \\ - 124.41 \\ - 32.69 \end{array} $	$\begin{vmatrix} + & 37 \\ - & 11 \\ - & 4 \end{vmatrix}$	- 7	$+10 \\ -3 \\ -1$	6 6	23.16 22.92 23.22 22.47 22.76	56.4

		Ī_				Let	vels.	1		Correc	tions.				Ther
1894.	Star.	P	Micro	omeler.	<i>c</i>	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	, Latitude.	mom.
	III 9	R	25.6963 22.0733 16.2707 19.9447 19.9503	12.2587 15.0517 21.9787 21.8603 22.5793	$     \begin{array}{r}       -120 \\       -88 \\       -45 \\       +15 \\       +30     \end{array} $	$^{+1.4}_{+.8}$	$egin{array}{c} + .2 \\ +2.5 \\ +2.6 \\ +1.6 \\ +2.0 \\ \end{array}$	40 42 3.18 40 39 19.71 40 38 47.21 40 35 33.81 40 37 27.61	$\begin{array}{c} -5 & 39.23 \\ -2 & 57.20 \\ -2 & 24.11 \\ +48.44 \\ -1 & 6.50 \end{array}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$egin{pmatrix} + & 20 \\ + & 54 \\ + & 46 \\ + & 63 \\ + & 37 \end{bmatrix}$	$     \begin{array}{r}       -10 \\       -5 \\       -4 \\       +2 \\       -2     \end{array} $	6 6 6 7	40 36 23.68 22.84 23.40 23.02 [21.45]	56.8 62.6 62.6 62.5
May 26	II 1 2 3 4	R	21.7293 23.0963 17.0517 19.3373 19.7093	20.9953 16.0077 22.8563 21.1433 22.3930	$egin{pmatrix} + & 9 \ - & 28 \ + & 2 \ + & 3 \ + & 25 \end{bmatrix}$	7 $8$	5 6 -1.1 2 2	40 36 41.45 40 39 22.61 40 38 50.23 40 35 36.97 40 37 30.59	$\begin{array}{c} - & 18.57 \\ - & 259.04 \\ - & 226.67 \\ + & 45.64 \\ - & 17.87 \end{array}$		$ \begin{array}{r rrrr}  & 16 \\  & 18 \\  & 26 \\  & 4 \\  & 5 \end{array} $	$     \begin{array}{r}       -1 \\       -5 \\       -4 \\       +2 \\       -2     \end{array} $	9 6 6 6 7	22.77 23.18 23.14 22.79 22.64	62.4 60.2 59.0
	5 6 7 8		26.8707 29.9290iv	18.6127 32.2570iv 14.6253 9.5380ii 19.4543	+79	$^{+2.9}_{-\ .7}$	$ \begin{array}{r}8 \\ +3.1 \\8 \\3 \\5 \end{array} $	40 36 44.39 40 46 17.10 40 41 32.87 40 27 47.12 40 35 8.79	$\begin{array}{c} - & 21.28 \\ - & 953.68 \\ - & 59.61 \\ + & 835.24 \\ + & 114.79 \end{array}$	$egin{array}{cccc} -&3 & & & & \\ -&91 & & & & \\ -&38 & & & \\ +&81 & & & 9 \end{array}$	$ \begin{array}{rrrr}  - & 6 \\  + & 85 \\  - & 6 \\  - & 15 \\  - & 41 \end{array} $	$     \begin{array}{r}       -1 \\       -17 \\       -9 \\       +17 \\       +3     \end{array} $	9 6 6 8 6	23.10 23.25 22.79 23.27 23.35	57.6 57.6
	10 III 1 2 3 4	R	30.0383 9.2137 <sup>ii</sup> 8.9077 <sup>ii</sup>	13.0313 <sup>ii</sup> 14.1933 33.5783 <sup>iv</sup> 34.0973 <sup>iv</sup> 33.3603 <sup>iv</sup>	$^{+292}_{+\ 54}_{+\ 69}$	$3 \\3 \\ +2.7$	$     \begin{array}{r}       -2.5 \\      3 \\      8 \\       +1.8 \\       +1.2     \end{array} $	40 29 51.45 40 43 4.68 40 46 40.36 40 25 44.48 40 25 49.85	$egin{array}{c} + 630.95 \\ - 641.10 \\ -1015.77 \\ +1036.66 \\ +1032.12 \end{array}$	$egin{array}{cccc} + & 66 \\ - & 49 \\ - & 93 \\ + & 96 \\ + & 95 \end{array}$	$egin{array}{cccc} -&49 \ -&9 \ -&15 \ +&65 \ +&9 \ \end{array}$	$+12 \\ -14 \\ -23 \\ +18 \\ +19$	11 6	22.76 22.96 23.39 22.99 23.26	56.8 55.1 55.7
Mov	5 6 7 8		23 9537 16.6870 21.0780 17.1490 13.5987	12.2640 20.1787 19.6387 23.9230 27.1550	$-193 \\ -48 \\ +4 \\ +32 \\ +44$	-1.0	$ \begin{array}{c}1 \\6 \\ +.3 \\ +.3 \\4 \end{array} $	40 31 27.26 40 37 51.06 40 36 58.77 40 33 30.49 40 42 6.57	-128.11 $-36.38$	$ \begin{array}{rrrr} + & 37 \\ - & 11 \\ - & 4 \\ + & 21 \\ - & 43 \end{array} $	$egin{bmatrix} -&8 \ -&23 \ +&23 \ +&7 \ -&27 \ \hline \end{pmatrix}$	$     \begin{array}{r}       +10 \\       -3 \\       -1 \\       +5 \\       -10     \end{array} $	7 6 6 6 6	22.60 22.64 22.63 22.12 23.18	55.1 54.8
May 27	II 1 2 3 4 5		16.9637 21.9660 21.6173 20.7663 18.7890	23.9600 16.1270 19.8260 18.0570 19.6513	+ 29 49 11 13 6	$+ .8 \\2$	$ \begin{array}{r}4 \\ + .2 \\ + .4 \\4 \\ - 1.5 \end{array} $	40 39 22.84 40 38 50.47 40 35 37.22 40 37 30.82 40 36 44.61	$egin{array}{ccccc} & -2&59.38 \ -&2&27.41 \ +&45.29 \ -&1&8.42 \ -&21.77 \end{array}$	$egin{array}{ccccc} -& 22 \ -& 18 \ +& 6 \ -& 8 \ -& 3 \end{array}$	$egin{bmatrix} -&15\ +&7\ +&17\ -&8\ -&35 \end{bmatrix}$	$ \begin{array}{r} -5 \\ -4 \\ +2 \\ -2 \\ -1 \end{array} $	6 6 6 7 9	23.10 22.97 22.82 22.29 22.54	63.6 62.4
	6 9 10 III 1 2	D	12.4897 ii	8.3233 <sup>ii</sup> 20.4600 27.9343 <sup>iv</sup> 25.4360 7.4890 <sup>ii</sup>	$-24 \\ -9 \\ -347$	<b>— .7</b>	$ \begin{array}{r}2 \\ + .4 \\ .0 \\ -1.8 \\ -1.8 \end{array} $	40 46 17.35 40 35 9.05 40 29 51.72 40 43 4.92 40 46 40.59	$+630.23 \\ -640.86$	$ \begin{array}{cccc}  & 91 \\  & 9 \\  & 66 \\  & 49 \\  & 93 \end{array} $	$egin{bmatrix} -&1\\+&17\\+&8\\-&34\\-&46 \end{bmatrix}$	$-17 \\ +3 \\ +12 \\ -14 \\ -23$	6 6 7 10 11	23.27 23.40 22.88 23.19 23.41	61.9 62.0 62.0 57.3
	3 4 5 6 7		21.6763	8.2193 <sup>ii</sup> 6.1647 <sup>ii</sup> 25.3343 18.2003 21.3267		-2.0 $-3$ $-6$	7 $-2.4$ $7$ $-1.0$ $+1.8$	40 25 44.75 40 25 50.11 40 31 27.41 40 37 51.31 40 36 59.03	+1036.89  +1033.23  +455.20  -127.83  -37.08	$\begin{array}{rrr} + & 96 \\ + & 95 \\ + & 37 \\ - & 11 \\ - & 4 \end{array}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$^{+18}_{+19}_{+10}_{-3}_{-1}$	6 6 7 6 6	22.47 23.92 23.01 23.18 22.42	58.4 58.4
June 3	8 9 II 1 2	R	16.6540	16.1913 12.7950 15.8577 22.5647 20.4890	<b>— 49</b>	$egin{array}{c}3 \\ +.1 \\ +.8 \\ +1.5 \\1 \end{array}$	$-1.0 \\7 \\ +2.3 \\ +.2 \\ .0$	40 33 30.75 40 42 6.80 40 39 24.36 40 38 52.07 40 35 38.92	$\begin{array}{r} +\ 2\ 51.67 \\ -\ 5\ 42.71 \\ -\ 3\ 1.66 \\ -\ 2\ 29.30 \\ +\ 43.73 \end{array}$	$\begin{array}{rrr} + & 21 \\ - & 43 \\ - & 22 \\ - & 18 \\ + & 6 \end{array}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$     \begin{array}{r}       +5 \\       -10 \\       -5 \\       -4 \\       +2     \end{array} $	6 6 6 6	22.57 23.55 22.90 22.88 22.78	58.4 65.1 65.8
lune 4	4 5 6 7 II 1		21.0650 8.6027 <sup>ii</sup> 26.2473	21.6150 20.1250 32.1667iv 13.9017 24.4070	+ 4	$\begin{array}{c} + .4 \\7 \\ +1.2 \\ + .5 \\ -1.5 \end{array}$	$+1.0 \\ + .2 \\ +1.3 \\ -1.1 \\ -2.0$	40 36 46.23 40 46 19.20	- 23.76	<b>—</b> 3	$egin{pmatrix} + & 19 \\ - & 9 \\ + & 36 \\ - & 6 \\ - & 49 \end{bmatrix}$	$     \begin{array}{r}       -2 \\       -1 \\       -17 \\       -9 \\       -5     \end{array} $	7 9 6 6 6	22,29 22,43 22,96 22,63 22,78	65.4 64.6 63.2
	2 3 4 5 6		20.9063 21.5270	17.0513 19.1917 18.7570 18.9100 7.9037 ii	$^{+}{}^{1}_{+}{}^{4}_{+}{}^{12}$	-1.3 9 3 -1.0 1	$     \begin{array}{r}       -2.0 \\       -8 \\       +.4 \\       -1.5 \\       -1.2     \end{array} $	40 38 52.24 40 35 39.11 40 37 32.62 40 36 46.41 40 46 19.41	+ 43.33	+ 6	- 45 - 24 - 0 - 35 - 17	$     \begin{array}{r}       -4 \\       +2 \\       -2 \\       -1 \\       -17     \end{array} $	6 6 7 9 6	22.68 22.34 22.59 22.57 22.53	62.8

							Lev	els.			Correc	tions.			1	Ther-
1894.	Sta	r.	P	Micro	meter.	<i>c</i>	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l .	r	Mer	Latitude.	mom.
June 8	II	1 3 4 5 6	R		15.7307 21.0010 22.1570 21.5957 31.6293iv	$\begin{vmatrix} + & 1 \\ + & 18 \\ + & 17 \end{vmatrix}$	+ .6	.0 —1.2 —1.8 — .1 —1.9		$\begin{array}{c} -3 & 2.00 \\ + & 43.00 \\ -1 & 10.26 \\ - & 24.07 \\ -9 & 55.67 \end{array}$	$\begin{vmatrix} + & 6 \\ - & 8 \\ - & 3 \end{vmatrix}$	$\begin{vmatrix} + & 1 \\ - & 16 \\ - & 37 \\ + & 8 \\ - & 46 \end{vmatrix}$	$     \begin{array}{r}       -5 \\       +2 \\       -2 \\       -1 \\       -17     \end{array} $	6 7 9	40 36 23.04 22.80 22.60 23.11 22.88	62.2 62.6
June 9	II	7 8 9 1 2	D		13.6483 9.8687 ii 19.2817 22.5833 15.1210	$+ \frac{14}{-66}$	$ \begin{array}{c c}8 \\ -1.7 \\ +.2 \\ +.8 \\ +.2 \end{array} $	$egin{array}{c}6 \\ -2.3 \\ +.8 \\ +2.4 \\ +1.6 \end{array}$	40 27 50.11 40 35 12.10	$\left  egin{array}{c} + \ 8 \ 32.84 \\ + \ 1 \ 11.60 \\ - \ 3 \ \ 2.47 \end{array} \right $	$\begin{vmatrix} + & 95 \\ + & 9 \\ - & 22 \end{vmatrix}$	$egin{array}{ccccc} -& 20 \ -& 56 \ +& 13 \ +& 42 \ +& 23 \ \end{array}$		8 6 6	22.89 23.59 24.01 23.17 23.30	59.467.2
		3 4 5 6 7		20.5827 19.8627 20.5180 35.1837 <sup>iv</sup> 14.5390	18.8997 17.0223 21.4927 11.5910 ii 26.9147	$\frac{ -8}{+106}$	+.65	$egin{array}{c} + .9 \\ + .2 \\2 \\ +1.1 \\ + .7 \end{array}$	40 35 40.01 40 37 33.44 40 36 47.23 40 46 20.38 40 41 36.32	-111.67 $-24.65$ $-956.40$	$ \begin{array}{c c} - & 8 \\ - & 3 \\ -1.05 \end{array} $	$egin{bmatrix} + & 9 \\ + & 12 \\ - & 10 \\ + & 33 \\ + & 17 \end{bmatrix}$	$     \begin{array}{r}                                     $	7 9 6	22.77 21.86 22.53 23.15 23.18	66.1 65.4
June 10		8 10 1 2 3	$\mathbf{R}$		30.3717 <sup>iv</sup> 28.6243 <sup>iv</sup> 15.7897 22.1900 2 <b>0.</b> 4690	-40 $-39$	$\left  { +  .2 \atop +1.2} \atop +  .7 \right $	$egin{array}{c} +1.3 \\ +.7 \\ +2.0 \\ +1.1 \\3 \end{array}$	40 29 55.14	$ \begin{array}{r} + 626.45 \\ - 32.37 \\ - 230.25 \end{array} $	$\begin{vmatrix} + & 80 \\ - & 22 \\ - & 18 \end{vmatrix}$	$egin{bmatrix} + & 16 \\ + & 12 \\ + & 44 \\ + & 25 \\ - & 2 \end{bmatrix}$	+12	$\begin{bmatrix} 6 \\ 6 \\ 6 \end{bmatrix}$	22.85 22.69 23.32 23.08 22.97	65.0 74.3
		4 5 6 7 8		19.9813 21.5140 9.0723 ii 25.6447 30.6877iv	22.7927 20.5343 32.6830iv 13.2350 10.4143ii	$     \begin{array}{r}       + 35 \\       + 8 \\       + 28 \\       - 59 \\       + 1     \end{array} $	4	8	40 36 47.43	- 24.77 - 9 56.66 - 5 13.41	$\begin{bmatrix} -3 \\ -1.05 \\ -38 \end{bmatrix}$	$egin{pmatrix} + & 8 \\ - & 17 \\ + & 26 \\ + & 35 \\ - & 42 \end{bmatrix}$	$     \begin{array}{r}       -2 \\       -1 \\       -17 \\       -9 \\       +17     \end{array} $	9 6 6	22.58 22.54 23.05 23.08 23.58	72.7
	III	9 10 1 1 2 3	$\mathbf{R}$	22.7780 27.1307iv 29.8003 8.1283 ii	19.9450 17.8223 in 13.8053 32.6333 iv 32.7067 iv	$^{+\ 34}_{+\ 21}_{+253}_{+\ 15}$	-2.1 -1.3 -1.4	-1.0 -1.4	40 35 12.57 40 29 55.40 40 43 8.60 40 46 44.23 40 25 48.97	$ \begin{array}{r} +626.86 \\ -644.79 \\ -1019.22 \end{array} $	$ \begin{array}{r} +80 \\ -49 \\ -1.07 \end{array} $	- 46 - 38 - 36 - 30 - 11	$     \begin{array}{r}       +3 \\       +12 \\       -14 \\       -23 \\       +18     \end{array} $	7 10 11	23.96 22.87 22.92 23.52 23.12	71.8 70.8 71.1
		4 5 6 7 8		7.0947 ii 27.2803 19.2093 22.6157 17.4600	31.9693iv 15.7877 22.8607 21.0180 24.0893	$^{+153}_{+\ 33}_{+\ 26}$	-1.8 8 8 +1.2 9	$ \begin{array}{c c} -2.0 \\ +2.7 \\ .0 \\3 \\3 \end{array} $	40 25 54.26 40 31 31.48 40 37 55.47 40 37 3.15 40 33 34.86	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} + & 37 \\ - & 11 \\ - & 4 \end{vmatrix}$	$egin{bmatrix} -&53\ +&22\ -&12\ +&15\ -&18 \ \end{matrix}$	$     \begin{array}{r}       +19 \\       +10 \\       \hline       -3 \\       -1 \\       +5     \end{array} $	7 6 6	23.54 23.02 22.92 22.82 22.62	70.1
	III			14.0007 11.4683 16.9260 21.7957 21.5413	27.7310 27.5190 24.1090 15.8257 19.8757	$ \begin{vmatrix} -74 \\ +32 \\ -63 \end{vmatrix} $	$ \begin{array}{c c}8 \\1 \\ -2.6 \\ +1.0 \\8 \end{array} $	$\begin{array}{c c} .0 \\ -3.4 \\ + .8 \end{array}$	40 39 25.86 40 38 53.66	$ \begin{array}{r} -645.38 \\ -31.58 \\ -230.69 \end{array} $	- 49 - 21 - 17	$egin{array}{cccccccccccccccccccccccccccccccccccc$	—14 — 5 — 4	10 6 6	22.86 22.97 23.24 23.08 22.69	73.8 74.8 74.3
June 14	II	1 2 3 4 5	D		23.6163 16.6387 19.7663 18.9093 20.5010	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c c}6 \\ -1.4 \\ +.2 \\ +1.1 \\ -1.6 \end{array} $	$\begin{vmatrix} -1.2 \\4 \\ +.3 \end{vmatrix}$		$ \begin{array}{r} -230.70 \\ +41.66 \\ -112.06 \end{array} $	$\begin{bmatrix} - & 17 \\ + & 5 \\ - & 8 \end{bmatrix}$	$\begin{bmatrix} - & 38 \\ - & 2 \\ + & 21 \end{bmatrix}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	6	23.09 22.85 22.86 22.62 22.44	67.4 67.0
		6 7 8 9 10		14.9777 9.7293 ii 18.6773	12.1947 ii 27.4117 29.9410iv 21.3737 28.2667iv	$\begin{array}{c c} +130 \\ - & 1 \\ + & 1 \end{array}$	$\begin{array}{c c}6 \\4 \\ + .3 \end{array}$	$\begin{bmatrix}7 \\ -1.2 \\2 \end{bmatrix}$	40 41 37.60 40 27 51.51 40 35 13.65	$ \begin{array}{r} -5 14.51 \\ +8 30.70 \\ +1 8.13 \end{array} $	$\begin{array}{c c} - & 36 \\ + & 89 \\ + & 8 \end{array}$	$\begin{vmatrix} + & 11 \\ - & 18 \\ - & 21 \\ + & 2 \\ - & 17 \end{vmatrix}$	<b>— 9</b>	6 8	23.62 22.52 23.14 21.97 23.24	66.6 65.9
	III	1 2 3 4 5	D	10.8007 30.1060iv 34.0560iv 31.3469iv 13.4723	9.0423 1	$^{+68}_{-46}$	$ \begin{array}{c c}4 \\3.7 \\9 \\ +.7 \end{array} $	-3.7 $-1.9$	40 25 50.28 40 25 55.55	$-10\ 20.96 \\ +10\ 32.21 \\ +10\ 26.72$	$ \begin{array}{r} -1.02 \\ +1.02 \\ +1.02 \end{array} $	- 24 - 20 -1.05 - 38	$-14 \\ -23 \\ +18 \\ +19$	10 11 6 6	22.79 23.07 22.70 23.16 23.10	61.2 61.0 60.8

1894.	Q1	P	16		Let	vels.	1,10		Correct	ions.				Ther
	Star.	P	Micrometer.	_ c	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom
June 15	II 1 2 3 4 5 5		23.1823 15.9227 15.6340 21.6307 19.3667 21.0097 19.5533 22.4335 22.3440 21.3347	$egin{array}{c c} -71 \\ +1 \\ +24 \end{array}$	$\begin{vmatrix} + .3 \\6 \\ + .4 \end{vmatrix}$	$egin{pmatrix} +1.5 \\ + .2 \\ .0 \\ +1.1 \\7 \end{pmatrix}$	40 39 26.42 40 38 54.26 40 35 41.30 40 37 34.70 40 36 48.50	$\begin{array}{c} -3 & 3.36 \\ -2 & 31.34 \\ + & 41.52 \\ -1 & 12.83 \\ - & 25.55 \end{array}$	$ \begin{array}{c c} - & 21 \\ - & 17 \\ + & 5 \\ - & 8 \\ - & 3 \end{array} $	$   \begin{array}{r}     + 39 \\     + 8 \\     - 9 \\     + 20 \\     - 15   \end{array} $	$egin{array}{cccccccccccccccccccccccccccccccccccc$		0 36 23.25 22.85 22.86 22.04 22.85	70.3 69.5
	10 10	3	8.7223 ii 32.3688 25.4000   12.9547 31.5880 iv 11.3690 22.8817   20.1478 27.1400 iv   11.8718	$\left. egin{pmatrix} -88 \\ +8 \\ +35 \end{smallmatrix} \right.$	$\begin{vmatrix}7 \\ +.6 \end{vmatrix}$	1	40 46 21.83 40 41 37.85 40 27 51.75 40 35 13.91 40 29 56.80		$egin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{bmatrix} - & 6 \ - & 18 \ + & 8 \ + & 5 \ - & 42 \ \end{pmatrix}$	$     \begin{array}{r}       -17 \\       -9 \\       +17 \\       +3 \\       +12     \end{array} $	6 6 8 6 7	23.16 23.04 23.86 23.31 23.18	68.6 67.1
	III 1 2 3 4 5		30.1150 14.0707 7.5430 ii 32.1317 8.7020 ii 33.6785 7.9033 ii 32.7320 26.2777 14.8374	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} + .5 \\ 2 & .0 \\ -2.8 \end{vmatrix}$	$egin{bmatrix} - & .9 \\ - & .2 \\ - & .9 \\ -2.4 \\ +2.0 \end{bmatrix}$	40 43 10.06 40 46 45.67 40 25 50.63 40 25 55.89 40 31 33.06	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{array}{c} -46 \ -1.02 \ +1.02 \ +32 \ \end{array}$	$\begin{array}{ c c c c }\hline & 32 \\ + & 5 \\ - & 11 \\ - & 74 \\ - & 44 \\ \hline \end{array}$	$     \begin{array}{r}     -14 \\     -23 \\     +18 \\     +19 \\     +10   \end{array} $	11 6 6	23.10 23.30 23.00 23.82 22.32	65.6 66.1 65.2
June 17		3	19.1923 22.9113 21.3033 19.6357 16.9993 23.5610 13.8800 27.6900 16.5460 23.8037	$\left  egin{array}{c} + & 7 \\ + & 17 \\ + & 95 \end{array} \right $	$\begin{vmatrix} +1.6 \\ -1.4 \end{vmatrix}$	$egin{array}{c} +1.2 \\ +.5 \\ +.1 \\ -1.0 \\ -1.4 \\ \end{array}$	40 37 57.12 40 37 4.79 40 33 36.50 40 42 12.44 40 39 26.71	$\begin{array}{ccccc} - & 1 & 34.06 \\ - & & 42.15 \\ + & 2 & 45.84 \\ - & 5 & 49.19 \\ - & 3 & 3.39 \end{array}$	$\begin{vmatrix} - & 11 \\ - & 5 \\ + & 19 \\ - & 40 \\ - & 21 \end{vmatrix}$	$ \begin{array}{r} + & 6 \\ + & 32 \\ - & 6 \\ - & 35 \\ - & 38 \end{array} $	$     \begin{array}{r}         -3 \\         -1 \\         +5 \\         -10 \\         -5     \end{array} $	6 6 6 6	23.04 22.96 22.58 22.46 22.74	65.9 78.1
	2 4 5	5	23.2100	<del>    1</del>   <del>    8</del>	$\begin{vmatrix} -1.2 \\ -1.0 \\ -1.5 \end{vmatrix}$		40 35 41.65 40 37 35.05	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{bmatrix} -&17\ +&5\ -&8\ -&3\ -&99 \end{bmatrix}$	- 14 - 22 - 30 - 41 - 28	$egin{bmatrix} -4 \\ +2 \\ -2 \\ -1 \\ -17 \end{bmatrix}$	6 6 7 9 6	22.89 22.87 22.41 22.51 23.08	78.2 77.8
	70 10 III 1	D	11.8930 24.4187 9.3653 ii 29.5370 13.2697 ii 28.5057 10.9837 27.0980 31.9013iv 6.9558	) <sup>iv</sup> — 1 <sup>iv</sup> — 37 —135	$\begin{vmatrix}4 \\ + .8 \\7 \end{vmatrix}$	$egin{array}{c} +2.1 \\ -\ .7 \\ +\ .7 \\ -\ .2 \\ -1.3 \end{array}$	40 41 38.30 40 27 52.17 40 29 57.31 40 43 10.63 40 25 51.30	$     \begin{array}{r}     + 829.69 \\     + 624.88 \\     - 646.83     \end{array} $	$egin{array}{c} -36 \\ +89 \\ +75 \\ -46 \\ +1.02 \end{array}$	$egin{pmatrix} + & 54 \\ - & 15 \\ + & 22 \\ - & 13 \\ - & 26 \end{bmatrix}$	$     \begin{array}{r}       -9 \\       +17 \\       +12 \\       -14 \\       +18     \end{array} $	7 10	22.46 22.85 23.35 23.17 22.56	76.1 74.0
	4 5 6 7		30.5727iv   5.7870   13.6513   25.0707   22.0593   18.3087   18.4053   20.0577   23.3087   16.7648	$\begin{bmatrix} -64 \\ +5 \\ -12 \end{bmatrix}$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c c}1 \\ +.1 \\2 \\ -1.3 \\8 \end{array} $	40 25 56.55 40 31 33.70 40 37 57.79 40 37 5.47 40 33 37.19	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{array}{c} +1.02 \\ +32 \\ -11 \\ -5 \\ +19 \end{array}$	$egin{pmatrix} + & 8 \\ + & 20 \\ + & 12 \\ - & 21 \\ - & 5 \end{bmatrix}$	$     \begin{array}{r}       +19 \\       +10 \\       \hline       -3 \\       -1 \\       +5     \end{array} $	6	23.98 22.77 23,05 [23.54] 22.80	73.1
June	II 1	R	24.0470 10.1900 23.1620 15.8975 16.4190 22.4375 18.4570 20.0760 24.4103 17.1450	$ \begin{array}{c c}  & -30 \\  & -31 \\  & -11 \end{array} $	$\begin{vmatrix}6 \\ + .2 \\ +1.4 \end{vmatrix}$	0	40 42 13.12 40 39 26.82 40 38 54.71 40 35 41.80 40 39 27.04	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} - & 40 \\ - & 21 \\ - & 17 \\ + & 5 \\ - & 21 \end{array}$	$egin{bmatrix} -&15\ -&9\ +&2\ +&32\ -&2 \end{bmatrix}$	$     \begin{array}{r}       -10 \\       -5 \\       -4 \\       +1 \\       -5     \end{array} $	6 6 6 6	23.27 23.04 22.59 23.12 23.12	72.9 79.1 79.1
	44.	8	19.2960 25.2747 19.5790 21.2218 20.4147 23.3008 21.2477 20.2097 8.1757 31.8588	$\begin{vmatrix} + & 5 \\ + & 46 \\ + & 6 \end{vmatrix}$	$ \begin{array}{c c}  & + .7 \\  & -2.3 \\  &8 \\  &4 \\  & -1.2 \end{array} $	$\begin{vmatrix} -3.1 \\ + .1 \\ -1.9 \end{vmatrix}$	40 35 42.08 40 37 35.45 40 36 49.24	+ 41.51	$\begin{vmatrix} + & 5 \\ - & 8 \\ - & 3 \end{vmatrix}$	+ 12 - 76 - 11 - 30 - 44	$     \begin{array}{r}       -4 \\       +1 \\       -2 \\       -17     \end{array} $	6 7	23.55 22.95 22.28 22.75 22.81	74.3 73.4
	10 111 1 2	R	26.3447 13.8628 27.2823iv 12.0558 30.3157 14.2320 9.6170 ii 34.2397 9.0700 ii 33.9690	$\begin{vmatrix} 1 & + & 15 \\ + & + & 318 \\ 2 & + & 78 \end{vmatrix}$	$\begin{vmatrix} -2.1 \\ -2.4 \\ + .5 \end{vmatrix}$	$ \begin{array}{c c} -2.2 \\ -1.3 \\2 \end{array} $	40 29 57.93	$ \begin{array}{r} +624.79 \\ -647.20 \\ -1022.35 \end{array} $	+ 75	$ \begin{array}{r rrrr}  - & 5 \\  - & 61 \\  - & 55 \\  + & 5 \\  + & 18 \end{array} $		10 11	22,98 23,05 23,10 23,54 22,92	71.2 67.6
	2. (c)	3 7 3	7.6717 ii 32.4107 18.0483 21.8493 21.4290 19.7017 18.1717 24.6617 14.7577 28.6128	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{array}{c c} -2.4 \\ -3.3 \\ +4.4 \\ +3.3 \\ -1.6 \\ \end{array}$	$\begin{vmatrix} + .5 \\1 \\3 \end{vmatrix}$	40 25 57.42 40 37 58.70 40 37 6.40 40 33 38.11 40 42 14.04	$\begin{array}{rrrr} - & 1 & 36.04 \\ - & & 43.66 \\ + & 2 & 44.19 \end{array}$	$ \begin{array}{r} +1.02 \\ - 11 \\ - 5 \\ + 19 \\ - 40 \end{array} $	$\begin{array}{c c} + & 1 \\ + & 5 \end{array}$	$\frac{-1}{+5}$	7 6 6	23,09 22,60 22,79 22,61 22,76	67.8 67.8

		Ī				Ler	els.			Correcti	ons.				Ther-
1894.	Star.	P	Micro	ne <b>ter.</b>	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom.
June 22	II 1		22.5197 19.7767 21.0363	22.3150 16.5040 18.1690 18.1510 18.9060	- 85 - 26 - 14 - 11 - 16	1 5 6	+1.4 + .11 -1.05	0 / 1/28 40 39 27.28 40 38 55.25 40 35 42.36 40 37 35.72 40 36 49.51	<b>— 1 12.88</b>	$\begin{bmatrix} - & 17 \\ + & 5 \\ - & 8 \end{bmatrix}$	+ 20 - 9 - 22 - 53	$   \begin{array}{r}     -5 \\     -4 \\     +1 \\     -2 \\     -1   \end{array} $	6 6 7 9	40 36 22.51 23.16 22.98 22.59 22.13	78.0
	10 III 1	3	9.0497, <sup>ii</sup> 11.5823 <sup>ii</sup>	25.1740 29.2160iv	—118 — 1	$ \begin{array}{c c} -2.1 \\ -1.3 \\ .0 \end{array} $	-2.4 -1.6 -1.8 8 -1.8	40 46 23.08 40 41 39.20 40 27 53.14 40 29 58.33 40 43 11.79	$ \begin{array}{r} -515.60 \\ +829.55 \\ +62347 \end{array} $	+ 89  + 75	- 63 - 53 - 43 - 10 - 50	$     \begin{array}{r}       -18 \\       -9 \\       +17 \\       +12 \\       -14     \end{array} $	7	23.08 22.68 23.40 22.64 22.84	75.6 74.9 73.9
		3	30.4007iv 34.3783iv 31.9827iv 21.8460 23.1097	5.7160 ii 9.5040 ii 7.2657 ii 18.0397 16.6077	+ 82	$\begin{bmatrix}0 \\ -1.0 \\ +1.1 \end{bmatrix}$	$ \begin{array}{r}2 \\ + .2 \\ -1.0 \\ + .2 \\8 \end{array} $	40 46 47.42 40 25 52.71 40 25 57.95 40 37 59.25 40 33 38.67	$+10\ 28.72 \\ +10\ 24.50 \\ -1\ 36.17$	$+1.02 \\ +1.02 \\ - 11$	$\begin{array}{cccc} + & 9 \\ + & 2 \\ - & 28 \\ + & 19 \\ - & 37 \end{array}$	$     \begin{array}{r}       -23 \\       +18 \\       +19 \\       \hline       -3 \\       +5     \end{array} $	6	22.85 22.71 23.44 23.19 22.87	74.7 73.9
June 27	п	R	19.7153 19. <b>42</b> 40	11.4643 22.3807 21.2843 22.3367 20.7650	$     \begin{array}{r}       -194 \\       -35 \\       +6 \\       +22 \\       +12     \end{array} $	<b>—</b> .9	9 -1.7 7 7	40 42 14.59 40 38 56.01 40 35 43.26 40 37 36.57 40 36 50.40	$+\ 39.66$ $-\ 1\ 13.65$	$\begin{vmatrix} - & 17 \\ + & 5 \\ - & 8 \end{vmatrix}$	- 18 - 36 - 23 - 25 - 9	$     \begin{array}{r}       -10 \\       -4 \\       +1 \\       -2 \\       -1     \end{array} $	6 6 6 7 9	23.05 22.72 22.81 22.64 22.41	73.7 76.8
June 28	1	3 7 8 0 2 D	26.9333 31.3457 <sup>iv</sup> 27.6953 <sup>iv</sup>		$+ \frac{68}{1}$	$egin{array}{c} +2.0 \\ +1.5 \\ +1.9 \end{array}$	$egin{array}{c} -1.2 \\ + .9 \\ + .4 \\ +1.8 \\ +2.6 \end{array}$	40 46 24.09 40 41 40.29 40 27 54.04 40 29 59 54 40 38 56.16	$\begin{array}{r} -5 17.42 \\ +8 27.78 \\ +6 21.73 \end{array}$	$ \begin{array}{rrr}  - & 36 \\  + & 89 \\  + & 75 \end{array} $	$\begin{array}{rrrr} - & 34 \\ + & 43 \\ + & 29 \\ + & 53 \\ + & 54 \end{array}$	$     \begin{array}{r}       -18 \\       -9 \\       +17 \\       +12 \\       -4     \end{array} $	6 8 7	23.16 22.91 23.25 22.74 23.07	76.4 76.0 75.9 74.9
		3 4 5 6 7	18.4433 22.3613 20.4690 31.9140iv 14.2953	16.8877 19.4280 21.5780 8.1670 i 26.8427	$\begin{bmatrix} -&31\\ +&23\\ +&10\\ +&1\\ +&62 \end{bmatrix}$	$\begin{array}{c} + .6 \\ +1.3 \\2 \end{array}$	$egin{bmatrix} +1.2 \\ + .1 \\ + .7 \\2 \\ .0 \end{smallmatrix}$	40 35 43.42 40 37 36.74 40 36 50.56 40 46 24.29 40 41 40.51	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	- 8 - 3 - 99	$     \begin{array}{r}       + 31 \\       + 11 \\       + 29 \\       - 6 \\       - 27     \end{array} $	$   \begin{array}{c}     + 1 \\     - 2 \\     - 1 \\     -18 \\     - 9   \end{array} $	9 6	23.08 ,22.64 22.85 23.09 22.65	73.9 73.9
	III		11.8537 ii 30.3643 6.8860 ii	29.8680 <sup>i</sup> 26.9753 <sup>i</sup> 14.1830 31.6173 <sup>i</sup> 33.1867 <sup>i</sup>	$\begin{array}{c} + 25 \\ + 320 \\ - 30 \end{array}$	$\begin{vmatrix}0 \\ -1.2 \\4 \end{vmatrix}$	1 5 -1.2	40 43 13.38 40 46 49.21	$ \begin{array}{r} +622.15 \\ -649.67 \\ -1024.82 \end{array} $	$\begin{array}{c c} + 44 \\ - 46 \\ -1.02 \end{array}$	$\begin{array}{rrrr} - & 18 \\ + & 2 \\ - & 25 \\ - & 21 \\ + & 38 \end{array}$	-23	10 11	23.47 22.58 22.96 23.04 23.09	73.1 70.9
		4 5 6 7 8	8,7643 ii 26,9250 18,5373 22,6827 17,7727	33.3983iv 15.6307 22.4010 20.8793 24.1827	$ \begin{array}{c c} + 44 \\ + 127 \\ + 16 \\ + 28 \\ + 58 \\ \end{array} $	$\begin{vmatrix} -1.2 \\ -1.6 \\ -1.5 \end{vmatrix}$	$ \begin{array}{c c} -1.4 \\ -1.7 \\ -2.3 \end{array} $	40 31 36.85 40 38 1.15 40 37 8.83	+445.70 $-137.67$ $-45.64$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	- 45 - 36 - 47 - 37 - 27	+10 $-3$ $-1$	6 6	23.15 22.68 22.93 22.82 22.72	70.6
July 8	II	9 3 4 5 6	13.3890 18.3350 19.3737 22.3053 8.1597 i	27.3453 19.8400 22.3373 21.1810 31.9397 <sup>i</sup>	- 10 + 29	$\begin{vmatrix} -1.7 \\ + .7 \\1 \\6 \\6 \end{vmatrix}$	+1.0	40 35 43.99 40 37 37.28 40 36 51.14	$\begin{array}{c c} + & 38.00 \\ - & 114.94 \\ - & 28.45 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	_ 3	$\begin{array}{c c} + 2 \\ - 2 \\ - 0 \end{array}$	6 7 9		
	III	7 8 0 1 2	27.6223 31.0273iv 29.5677iv 9.6403 28.0960iv	15.0533 10.9607 14,4700 25.9490 3.2840	-8'	$\begin{vmatrix} 1 & 1 & 1 \\ 3 & + & 1 \end{vmatrix}$	0.0	40 27 54.88 40 30 0.76 40 43 14.64	$\begin{array}{c c} + 827.04 \\ + 621.26 \\ - 651.29 \end{array}$	$\begin{vmatrix} + & 89 \\ 5 & + & 75 \\ - & 46 \end{vmatrix}$	+ 3	$+17 \\ +12 \\ -14$	8 7 1 10	22.99 22.86	75.8
		3 4 5 7 8	32.5057is 30.7387is 12.4033 17.7903 22.9477	7.7547 6.1347 23.6473 19.6993 16.5910	—19· — 18	$ \begin{array}{c cccc} 6 & -1.4 \\ - & .5 \\ 4 & +1.2 \\ 8 &4 \\ - & .6 \end{array} $	$+1.0 \\ +2$		+443.69 $-48.19$	$\begin{vmatrix} +1.02 \\ + 32 \\ - 5 \end{vmatrix}$	$\begin{vmatrix} + & 31 \\ - & 4 \end{vmatrix}$	+19	$egin{array}{c c} 6 \\ 7 \\ 6 \\ \end{array}$	24.00 22.78 22.27	74.7

						Let	vels.			Correct	ions.				7 hour
1894.	Star.	P	Micro	meter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r	Mer	Latitude.	Ther- mom.
July 3 5	III 9 II 3 4 5 6	D	24.1933 21.2487 19.8970 18.8150 32.2340iv	10.1353 19.7213 16.9320 19.9427 8.4437 ii	$     \begin{array}{r}         -346 \\         + 4 \\         - 41 \\         - 7 \\         + 11     \end{array} $	3 9	5 + .1 5 9	40 42 18.17 40 35 44.15 40 37 37.44 40 36 51.31 40 46 25.23	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{vmatrix} + & 5 \\ - & 8 \\ - & 3 \end{vmatrix}$	- 13 - 4 - 21 - 26 - 14	-10 + 1 - 2 0 - 18	6 6 7 9 6	40 36 25.26 22.83 22.39 22.63 22.83	74.4 69.4 68.9
	7 8 10 III 1 2	R	12.3277 ii 29.7010	27.5530 i 29.8447 <sup>iv</sup> i 27.3910 <sup>iv</sup> 13.4353 i 31.7533 <sup>iv</sup>	$^{+6}_{+222}$	$\begin{array}{c c}1 \\ + .6 \\9 \end{array}$	3 .0 .0 5 7	40 41 41.58 40 27 55.25 40 30 1.07 40 43 15.04 40 46 50.72	<b>—</b> 6 51.56	$\left  { + \atop +} \right. \begin{array}{l} 89 \\ + \ 75 \end{array}  ight $	$\begin{array}{rrrr} - & 10 \\ - & 1 \\ + & 10 \\ - & 21 \\ - & 25 \end{array}$		6 8 7 10 11	22.46 23.35 22.74 22.77 23.17	68.1 68.5 66.6 <i>d</i>
July 9	3 4 III 1 2 3		7.5640 ii		$-7 \\ -122 \\ -2$	$ \begin{array}{c c} -2.1 \\6 \\3 \end{array} $	$ \begin{array}{c c} -2.0 \\5 \\ + .7 \end{array} $	40 25 56.62 40 26 1.84 40 43 15.93 40 46 51.62 40 25 57.71	$+10\ 20.16$ $-6\ 32.40$ $-10\ 27.55$	+1.02	$- \begin{array}{c c} - & 16 \\ + & 4 \end{array}$		6. 6 10 11 6	23.22 22.69 22.85 22.92 23.08	66.8 59.1
	4 5 6 7 8		33.0963 <sup>iv</sup> 15.4683 23.5057 20.2543 24.9110	8.5557 ii 26.6553 19.5090 22.1863 18.6340	$^{+104}_{+\ 53}_{+\ 20}$	$ \begin{array}{r} -3.1 \\ -0.0 \\ 0.0 \\ -1.5 \\ -0.7 \end{array} $	-1.9 -1.7 -1.3 -1.5 -1.0	40 31 39.95 40 38 4.48 40 37 12.21	$egin{array}{l} +10\ 20.16 \\ +\ 4\ 42.93 \\ -\ 1\ 41.12 \\ -\ 48.87 \\ +\ 2\ 38.85 \end{array}$	$   \begin{array}{r}     +1.05 \\     + 32 \\     - 12 \\     - 6 \\     + 18   \end{array} $	- 16 - 43	$^{+19}_{-10}$ $^{-3}$ $^{-2}$	6 6 6 6	23.64 23.15 23.11 22.89 22.93	58.5
	. 9 IV 1 2 3 4	D	20.3993 12.7890	13.5037 20.6823 21.0507 29.6640 18.5613	$^{+\ 67}_{+\ 13}_{+\ 3}_{+\ 180}_{+\ 39}$	-2.0 6	-1.1 2 9 -1.5 4	40 36 54.14 40 36 39.82 40 29 15.54	31.39 16.47	- 41 - 4 - 2 + 49 - 14	43	+13	6 13 10 7 10	23.38 23.01 23.00 22.80 22.55	57.6 55.8 56.8
	5 6 7 8 9		30.9527 <sup>iv</sup> 13.5607 <sup>ii</sup> 28.6567	30.6350 <sup>iv</sup> 11.0743 <sup>ii</sup> 29.0287 <sup>iv</sup> 13.1360 21.2607	0	-2.01	5 -1.6 4 -1.1 -2.8	40 42 56.47	+ 8 22.28	+ 84 + 91 + 79 - 45 - 9	<b>—</b> 52	-12	6 5 .5 7 12	23.24 23.23 22.59 23.27 22.38	
July 10	10 11 12 III 1 2		5.7830 <sup>ii</sup> 25.6060 29.8683	24.8887 33.9913iv 14.1027 13.5290 33.3937iv	$-14 \\ +241$		$-0.7 \\ +0.3 \\ +2.0 \\ +0.7$	40 40 2.09 40 24 29.53 40 41 13.45 40 43 16.18 40 46 51.88	$   \begin{array}{r}    338.56 \\     +1152.74 \\    450.63 \\    653.46 \\    1027.67   \end{array} $	- 25 +1.15 - 33 - 48 -1.06		$egin{array}{cccc}&6 \\ +20 \\&9 \\14 \\24 \\ \end{array}$		23.23 23.41 22.39 22.62 23.24	55.2 55.6 68.2 66.9
July 11 12	3 4 5 III 1 III 1	$\mathbf{D}$	8.7317 <sup>11</sup> 25.9337 12.8370		$^{+\ 37}_{+\ 35}_{+143}$	$egin{array}{ccc} + .4 \ -1.2 \ + .8 \end{array}$	+2.3	40 26 3.23 40 31 40.25	$+10\ 18.58$	$     \begin{array}{r}       +1.05 \\       +1.05 \\       +32 \\       -48 \\       -48    \end{array} $	$ \begin{array}{c c} + & 13 \\ - & 26 \\ + & 42 \end{array} $	$egin{array}{c} +18 \ +19 \ +10 \ -14 \ -14 \ \end{array}$			65.4 73.9 79.0
	2 3 4 5 6		8.0523 <sup>ii</sup> 9.5440 <sup>ii</sup> 26.5570	34.1163iv 32.6987iv 33.9783iv 15.4530 21.3700	+ 16	$\left. { +  .3 \atop +  .7 \atop + 1.3 } \right $	$^{+2.0}_{+\ .8}$	40 46 52.42 40 25 58.66 40 26 3.86 40 31 40.88 40 38 5.47	$+10\ 22.80\   +10\ 17.57\  $	$+1.23 \\ +1.23$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{c} -24 \\ +18 \\ +19 \\ +10 \\ -3 \\ \end{array}$		23,12	78.3 78.4
	7 8 9 IV 1 2	R	15.9853 13.2100 20.6610	19.0327 22.2247 27.3607 21.9337 21.2967	$egin{pmatrix} + & 1 \ - & 49 \ + & 34 \ + & 13 \ + & 9 \end{bmatrix}$	$egin{array}{c} +1.6 \\ + .6 \\ -1.0 \\3 \\ + .2 \end{array}$	$\begin{array}{c} + .2 \\1 \\6 \\ .0 \end{array}$	40 37 13.22 40 33 45.06 40 42 20.93 40 36 54.99 40 36 40.70	$\begin{array}{cccc} - & 50.97 \\ + & 2 & 37.53 \\ - & 5 & 57.64 \\ - & & 32.19 \\ - & & 17.68 \end{array}$	$ \begin{array}{c cccc}  & - & 6 \\  & + & 18 \\  & - & 41 \\  & - & 4 \\  & - & 2 \end{array} $	$egin{pmatrix} + & 28 & + & 8 & + & 8 & + & - & 17 & - & - & 12 & - & + & 3 & - & 12 & - & & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & 12 & - & $	$egin{pmatrix} -&2\\ +&4\\ -&10\\ -&1\\ 0 \end{bmatrix}$	6 6 13 10	22.67	78.4 77.6
	3 4 5 6 7		17.1003 29.3623iv 9.8267 ii	11.4143 21.8880 11.9830 <sup>ii</sup> 29.6500 <sup>iv</sup> 11.1683 <sup>ii</sup>	— 21 — 14 + 1	<b>— .4</b>	$ \begin{array}{c c}2 \\ +1.1 \\ .0 \\ +.9 \\ -2.3 \end{array} $	40 29 16.46 40 38 23.19 40 29 2.78 40 28 1.27 40 29 51.87	$-20.92 \\ +719.10$	$egin{array}{cccc} +& 49 \ -& 14 \ +1.02 \ +1.09 \ +& 97 \end{array}$	$ \begin{array}{c c} + & 12 \\ - & 6 \\ + & 34 \end{array} $	$egin{array}{cccc} +13 & & & \ -4 & & \ +13 & & \ +14 & & \ +11 & & \ \end{array}$	7 10 6 5 5		76.8 76.8

						Lev	els.			Correcti	ons.			T	Ther-
1894.	Star.	P	Micron	neter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom.
	IV 8 9 10 11 12		22.4447 24.5270 33.5513iv	27.3700 19.4967 15.8483 5.4093 <sup>ii</sup> 25.1350	-57 $+25$ $+16$ $-37$ $-62$	$\begin{vmatrix} + .1 \\ + .6 \\6 \end{vmatrix}$	0 2 .0 9 -1.1	40 42 57.30 40 37 37.82 40 40 2.87 40 24 30.28 40 41 14.17		+1.33	- 9 - 1 + 9 - 21 - 14	$     \begin{bmatrix}       -12 \\       -2 \\       -6 \\       +20 \\       -9     \end{bmatrix} $	6	40 36 23.40 23.27 23.38 22.66 23.30	75.6 75.4
July 18	III 1 2 3 4 5	D	30.7720iv 34.20n7iv 31.1690iv	30.2810 5.8833 ii 9.5773 ii 6.7063 ii 26.2557	+76 $-42$	$\begin{array}{c} + .9 \\ + .7 \\ + 1.3 \\ + 1.4 \\ + 1.0 \end{array}$	$egin{array}{c} +2.1 \\ +1.6 \\ +2.0 \\ .0 \\ +.7 \end{array}$	40 43 16.96 40 46 52.69 40 25 58.97 40 26 4.17 40 31 41.20	$ \begin{array}{r} -10 \ 28.70 \\ +10 \ 22.01 \\ +10 \ 18.01 \end{array} $	$ \begin{array}{r r} -1.24 \\ +1.23 \\ +1.23 \end{array} $	+ 41 + 31 + 45 + 23 + 25	$     \begin{array}{r}       -14 \\       -24 \\       +18 \\       +19 \\       +10     \end{array} $	11 6 6	23.33 22.93 22.90 23.89 22.70	81.9 81.5 81.2 80.6
	6 7 8 9 IV 1	D	18.6077 22.2180 25.9910	18.2537 20.6130 16.0040 11,8240 19.3720	$\begin{vmatrix} + & 10 \\ - & 7 \\ - & 48 \\ -136 \\ + & 1 \end{vmatrix}$	$\begin{vmatrix} -1.1 \\ 0 \end{vmatrix}$	$ \begin{array}{c c} +1.5 \\2 \\ -2.5 \\1 \\7 \end{array} $	40 38 5.81 40 37 13.56 40 33 45.41 40 42 21 28 40 36 55.29	$egin{array}{c} -50.65 \ +2.36.89 \ -5.57.62 \end{array}$	$\begin{array}{c c} - & 6 \\ + & 18 \\ - & 41 \end{array}$	$egin{pmatrix} + & 51 \\ - & 13 \\ - & 49 \\ - & 1 \\ + & 2 \end{bmatrix}$	$^{+4}_{-10}$	6	22.87 22.76 22.09 23.20 23.11	79.6 77.7 74.3
	2 3 4 5 6		18.2353 11.3597 20.7393 10.7817 <sup>ii</sup> 29.3783 <sup>iv</sup>	18.9683 28.2093 15.9650 28.1347 <sup>i</sup> 9.5817 <sup>i</sup>	- 32 69	8	4	40 38 23.50	$ \begin{array}{c ccccc} + 7 & 5.67 \\ - 2 & 0.46 \\ + 7 & 18.50 \end{array} $	$\begin{array}{c c} + & 49 \\ - & 14 \\ +1.02 \end{array}$	$egin{bmatrix} -&17 \\ -&7 \\ -&28 \\ -&6 \\ +&2 \end{bmatrix}$	+13	7 10 6	22.42 23.08 22.68 22.81 23.11	74.4
	7 8 9 10 11		17.4717 16.2730	26.0217iv 10.8930 20.4447 24.9560 32.8770iv	-180 $-27$ $+45$	$\begin{bmatrix} - & .3 \\ - & .0 \\ -1.2 \end{bmatrix}$	$\begin{bmatrix} -2.3 \\ .0 \\4 \end{bmatrix}$	40 42 57.61 40 37 38.08 40 40 3.16	$\begin{array}{r} - 6 33.54 \\ - 1 15.05 \\ - 3 39.51 \end{array}$	$ \begin{array}{c cccc}  & - & 45 \\  & - & 9 \\  & - & 25 \end{array} $	$egin{bmatrix} -&16 \ -&34 \ &&0 \ -&24 \ +&23 \ \hline \end{array}$	—12 — 2 — 6	7 12 6	22.80 23.23 23.04 23.16 23.43	72.6 72.8
July 17		R	10.1883 ii 6.8560 ii	12.7177 11.3427 34.9863 <sup>i</sup> 31.4447 <sup>i</sup> 31.2030 <sup>i</sup>	$\begin{vmatrix} -68 \\ +108 \\ -34 \end{vmatrix}$	$ \begin{vmatrix} + .1 \\ -2.4 \\ + .6 \\ + 1.8 \\ + .6 \end{vmatrix} $	$\begin{vmatrix} -1.3 \\ +.6 \\ +1.8 \end{vmatrix}$	40 43 17.81 40 46 53.58 40 26 0.06	$ \begin{array}{r} -653.56 \\ -1029.39 \\ +1021.21 \end{array} $	$\begin{vmatrix} - & 48 \\ - & 95 \\ + & 94 \end{vmatrix}$	$egin{pmatrix} + & 15 \\ - & 55 \\ + & 17 \\ + & 51 \\ + & 10 \\ \end{pmatrix}$	-14 $-24$ $+18$	10 11 6	22.84 23.18 23.28 22.96 23.29	
	6 7 8	3	26.0203 16.7203 19.3943 16.4527 12.8570	14.9500 20.8430 17.3293 22.6280 27.0730	- 20	$egin{array}{cccc} 7 & - & .5 \\ 4 & - & .7 \\ 0 & +1.1 \\ 6 & + & .6 \\ - & .9 \\ \end{array}$	$\begin{vmatrix} .0 \\ .0 \\ + .9 \end{vmatrix}$	40 38 7.00 40 37 14.78 40 33 46.66	-144.06 $-52.10$ $+235.97$	$\begin{vmatrix} -12 \\ -6 \\ +18 \end{vmatrix}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	- 2 + 4	6 6 6 6	23.12	
July 24	5	8	22.1360 28.2407iv 8.6123 ii	21.0093 21.3803 10.9177 28.3640 <sup>3</sup> 28.2277	+ 1 + 1 + 1 + 1 + 1	$\begin{bmatrix} 3 &8 \\ 1 & +1.0 \\ 0 &9 \\ 4 & .0 \\ 3 & -1.7 \end{bmatrix}$	$\begin{vmatrix} +1.4 \\ .0 \\5 \end{vmatrix}$	40 36 42.21 40 29 4.47 40 28 2.89	$ \begin{array}{c c}  & -19.12 \\  & +717.74 \\  & +819.09 \end{array} $	$\begin{vmatrix} 2 & - & 2 \\ 4 & + & 73 \\ + & 80 \end{vmatrix}$	— 33   — 14   — 6	$\begin{vmatrix} & 0 \\ +18 \\ +14 \end{vmatrix}$	l   5	22.84 22.99 22.91	
	\$ 4.	1	$ 30.9720^{\text{iv}} $	7.5753	$\begin{array}{c c} + & -4 \\ -4 & -12 \end{array}$	4 -1.8	$\begin{bmatrix}4 \\ -1.2 \\4 \end{bmatrix}$		7 + 10 20.27 + 10 15.63	$\begin{vmatrix} + & 94 \\ 3 & + & 94 \\ 5 & + & 32 \end{vmatrix}$	— 34   — 24   + 8	+18  +19  +10	6 6 6 7	22.89 23.55 23.22	70.0 69.4
	IV 1	3	18.2437 22,3500 27,5530 20.4553 19.4613	20.3580 16,2463 13.2797 19.0700 20.2727	-3 + 5 - 5	$ \begin{vmatrix} 3 & -1.8 \\ 7 & .4 \\ 2 & + .5 \\ 2 & + .2 \\ 1 & -2.0 \end{vmatrix} $	$\begin{bmatrix}5 \\3 \\ 0 \end{bmatrix}$	40 33 48.68 40 42 24.58 40 36 58.21	$2 \perp 2.34.1$	$3 \perp 18$	- 18   + 4   + 8	3 - 3 3 + 4 3 - 1 3 - 1	1 6 0 6 1 13	22.90 23.33 23.32	69.4 69.0
	\$ 4.5 PM	1	23,2290 12,6303 ii 27,4970 iv	27.8907 18.3397 30.8740 12.1727 26.7820	$\begin{vmatrix} +3\\-2\\ +\end{vmatrix}$	7 +.4	$\begin{vmatrix} 3 &2 \\ 4 & +.2 \\ 3 &2.4 \end{vmatrix}$	40 38 26.55 40 29 6.48 40 29 55.44	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} - & 21 \\ + & 9 \\ - & 74 \end{vmatrix}$	+13 - 4 +13 +13 - 15	4   10 3   6 1   5	22.64 23.13 22.74	68.9

<sup>\*</sup> Instrument probably disturbed.

1001	a,	_				Let	vels.	1/0: 20		Correct	ions.				Ther-
1894.	Star.	P	Micron	neter.		A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r	Mer	Latitude.	mom.
July	IV 9 10 11 12 III 1		23.9843 34.6077 <sup>iv</sup> 13.5547	19.3193 15.1797 6.5943 <sup>ii</sup> 25.1597 10.3860	$ \begin{array}{r} + 22 \\ - 32 \\ + 42 \\ - 75 \\ - 199 \end{array} $	+1.4 $2$ $8$	9 + .1 0 8 + .2	0 / 40 87 40.81 40 40 6.18 40 24 33.44 40 41 17.21 40 43 19.38	$ \begin{array}{r} -342.39 \\ +1147.94 \\ -453.04 \end{array} $	$ \begin{array}{c c} -25 \\ +1.04 \\ -33 \end{array} $	$ \begin{array}{rrrr}  - & 18 \\  + & 24 \\  - & 3 \\  - & 23 \\  + & 13 \end{array} $	$ \begin{array}{r} -2 \\ -6 \\ +20 \\ -9 \\ -14 \end{array} $	12 6 7 7 10	40 36 23.38 23.78 22.66 23.59 23.31	68.4 68.5 78.0
	2 3 4 5 6		8.6337 <sup>ii</sup> 6.7493 <sup>ii</sup> 26.2387	33.4850 iv 33.1263 iv 31.1077 iv 15.2370 21.5553	+ 35	-1.4 + .4	+1.1  +1.6  -2.0  + .7 4	40 46 55.22 40 26 2.06 40 26 7.26 40 31 44.29 40 38 9.18	$+10\ 18.96  +10\ 15.37  +4\ 38.17$	$\begin{array}{ c c c c c } + & 94 \\ + & 94 \end{array}$	$   \begin{array}{r}     + 40 \\     + 56 \\     - 47 \\     + 15 \\     - 29   \end{array} $		11 6 6 7 6	23.85 22.76 23.35 23.10 23.18	77.7 77.8 77.4
	7 8 9 IV 1 2	$\mathbf{R}$	17.1653 14.3500 19.9830	18.8147 23.2457 28.6027 21.3907 20.9513	$ \begin{array}{r}  - 3 \\  + 11 \\  + 184 \\  + 9 \\  + 10 \end{array} $	8	$egin{array}{c} + .4 \\ -1.2 \\ -1.4 \\ + .6 \\ -1.4 \\ \end{array}$	40 37 17.01 40 33 48.96 40 42 24.85 40 36 58.50 40 36 44.34	$\begin{array}{c c} - & 6 & 0.60 \\ - & 35.59 \end{array}$	$\begin{vmatrix} + & 18 \\ - & 41 \\ - & 4 \end{vmatrix}$	$   \begin{array}{r}     + 30 \\     - 28 \\     - 33 \\     + 14 \\     - 52   \end{array} $	$     \begin{array}{r}       -2 \\       +4 \\       -10 \\       -1 \\       0     \end{array} $	6 6 13 10	23.45 22.62 23.47 23.13 22.94	75.3 72.1 <i>a</i>
	3 4 5 6 7		19.4510 28.4383 iv	49.010U**	$^{+\ 81}_{-\ 2}$	-1.0	$ \begin{array}{c c} -1.2 \\8 \\4 \\ +.4 \\ -1.6 \end{array} $	40 29 20.38 40 38 26.85 40 29 6.81 40 28 5.21 40 29 55.76	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{vmatrix} - & 14 \\ + & 73 \\ + & 80 \end{vmatrix}$	$\begin{array}{rrr} - & 31 \\ - & 34 \\ - & 16 \\ + & 30 \\ - & 39 \end{array}$	+13 $-4$ $+13$ $+14$ $+11$	6	22.29 22.82 22.79 23.02 22.74	72.4 72.1
<b>.</b>	8 9 10 11 12		24.2690 24.5113 35.0247 iv	28.6840 21.2307 15.7043 7.0310 ii 26.6280	+117 + 73 + 8 + 72 + 83	$ \begin{array}{r} -1.5 \\8 \\ +.1 \\ -1.0 \\4 \end{array} $	-1.6 -1.5 2 -1.3 5	40 43 0.49 40 37 41.07 40 40 6.47 40 24 33.72 40 41 17.47	-116.95 $-342.55$ $+1147.52$	$- 9 \\ - 25$	- 44 - 32 - 1 - 33 - 13	$     \begin{array}{r}       -12 \\       -2 \\       -6 \\       +20 \\       -9     \end{array} $	7 12 6 7 7	22.86 23.81 23.66 [22.22] 23.25	71.8
Aug. 5	III 1 2 3 4 5	D	$32.3293^{\mathrm{iv}}\ 34.9670^{\mathrm{iv}}\ 33.5277^{\mathrm{iv}}$	32.4590 7.3310 <sup>ii</sup> 10.5520 <sup>ii</sup> 9.3250 <sup>ii</sup> 25.9073	$-8 \\ +106$	<b>—</b> .4	$ \begin{vmatrix} -1.0 \\ -1.7 \\9 \\2 \\ +.6 \end{vmatrix} $	40 43 21.20 40 46 57.18 40 26 4.53 40 26 9.74 40 31 46.83	$-10\ 31.99  +10\ 17.54  +10\ 12.03$	$ \begin{array}{r} -1.28 \\ +1.29 \\ +1.29 \end{array} $	$\begin{array}{rrr} - & 32 \\ - & 34 \\ - & 42 \\ - & 7 \\ + & 20 \end{array}$	$     \begin{array}{r}       -14 \\       -25 \\       +18 \\       +18 \\       +9     \end{array} $	9 11 5 6 7	22.27 23.43 23.17 23.23 23.01	67.7† 66.3 65.8
	6 7 8 9 IV 1	D	18.2310 23.8857 26.2977	18.8963 20.4863 17.9057 11.8497 18.6177	<b>—</b> 12		8 9 -1.0 -1.6 .0	40 38 12.00 40 37 19.94 40 33 51.98 40 42 27.93 40 37 1.55	$ \begin{array}{r} -56.99 \\ +231.31 \\ -64.99 \end{array} $	$\begin{vmatrix} + & 2 \\ - & 6 \\ + & 15 \end{vmatrix}$	- 13 - 19 - 38 - 38 + 39	$     \begin{array}{r}       -3 \\       -2 \\       +4 \\       -10 \\       -1     \end{array} $	6 6 5 13	22.72 22.82 22.95 22.66 23.37	64.0 60.9
	2 3 4 5 6		11.7290	19.4040 28.3297 16.8027 28.2767 iv 10.3120 ii	$\frac{-30}{+7}$	$\begin{vmatrix}7 \\ + .4 \\6 \end{vmatrix}$	$ \begin{array}{c c} -2.3 \\ -1.8 \\ .0 \\ -2.3 \\ -1.8 \end{array} $	40 36 47.52 40 29 23.83 40 38 30.10 40 29 10.38 40 28 8.77	$ \begin{array}{r} +659.75 \\ -27.76 \\ +711.65 \end{array} $	$\begin{vmatrix} - & 16 \\ + & 5 \\ +1.36 \end{vmatrix}$	$\begin{array}{rrr} - & 68 \\ - & 34 \\ + & 6 \\ - & 38 \\ - & 56 \end{array}$	$     \begin{array}{r}       -1 \\       +13 \\       -4 \\       +12 \\       +13     \end{array} $	7 10 6	22.85 23.28 22.51 23.19 23.01	61.0 61.1
	7 8 9 10 11		11.4410 <sup>ii</sup> 26.1637 17.4260 15.5473 6.7920 <sup>ii</sup>	10.2742	-225 $-28$	$+ .1 \\ -2.4$	$ \begin{array}{c c} -1.1 \\6 \\ -2.4 \\ -1.3 \\ -1.5 \end{array} $	40 29 59.30 40 43 4.42 40 37 44.09 40 40 9.84 40 24 36.98	$\begin{array}{c} -641.15 \\ -120.27 \\ -346.36 \end{array}$	$\begin{vmatrix} + & 16 \\ + & 3 \\ + & 9 \end{vmatrix}$	- 7 - 6 - 69 - 49 - 43	-12 - 2 - 6	7 11 6	22.91 23.32 23.25 23.08 23.76	60.9 60.2
Aug.	12 III 1 2 3 4	R	29.0530 9.1623 ii 7.7030 ii	13.8953 12.4807 34.2177 iv 32.0973 iv 33.3690 iv	$^{+110}_{+75}_{-5}$	$ \begin{array}{c c}1 \\ .0 \\ +1.3 \\ +1.4 \\ + .4 \end{array} $	$\left  { \begin{array}{c} + \ .1 \\ +1.3 \\ +2.6 \\ + \ .3 \\ .0 \end{array}} \right $	40 41 20.64 40 43 21.43 40 46 57.16 40 26 4.81 40 26 9.97	$ \begin{array}{r} -659.26 \\ -1033.65 \\ +1016.73 \end{array} $	$\begin{vmatrix} + & 17 \\ -1.28 \\ +1.29 \end{vmatrix}$	$egin{bmatrix} - & 0 \\ + & 16 \\ + & 54 \\ + & 26 \\ + & 6 \end{bmatrix}$	$-24 \\ +18$	5	22.57 22,44 22.64 23.32 23.27	60.3 69.0
	5 6 7 8 9		18.0220 20.7910 17.7787	15.6217 22.3563 18.4823 23.7367 27.1853	$+100 \\ +8 \\ -8 \\ +40 \\ -3$	+1.4	2	40 31 47.07 40 38 12.26 40 37 20.20 40 33 52.25 40 42 28.21	-149.60 $-58.35$ $+230.73$	$\begin{vmatrix} + & 4 \\ + & 2 \\ - & 6 \end{vmatrix}$	$ \begin{array}{r} + & 5 \\ - & 23 \\ + & 34 \\ - & 22 \\ - & 44 \end{array} $	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	6	22.66 22.50 22.25 22.80 22.36	69.4 69.8 69.1

<sup>\*</sup>Probably bisected with thread V by mistake. † Outside micrometer limit.

						Lev	els.			Correct	ions.				The
594.	Star.	P	Micro	meter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mon
ug. 6	IV 1 2 3 4 5	R	25.0143	21.1100 24.0433 11.3527 23.8440 11.0807 ii	$     \begin{array}{r}       + 3 \\       + 37 \\       - 52 \\       + 58 \\       + 12     \end{array} $	-1.6 $-1.7$	$ \begin{array}{r} -1.7 \\ -1.6 \\9 \\ -1.0 \\ +.4 \end{array} $	0 1 1.81 40 37 1.81 40 36 47.79 40 29 24.13 40 38 30.37 40 29 10.68	2 7.75	$\begin{vmatrix} + & 1 \\ - & 16 \\ + & 5 \end{vmatrix}$	- 49 - 46 - 39 - 32 + 15	$     \begin{bmatrix}       -1 \\       -1 \\       +13 \\       -4 \\       +12     \end{bmatrix} $	11 7 10	40 36 22.86 22.80 22.90 22.41 22.49	65. 64.
	6 7 8 9 10		9.1027 ii 27.0347 iv 12.4307 21.7927 24.2853	28.5907 iv 11.9453 ii 28.3037 18.5610 15.2787	$ \begin{vmatrix} + & 5 \\ + & 22 \\ + & 50 \\ - & 4 \\ - & 22 \end{vmatrix} $	7 4	$\begin{vmatrix}4 \\ + .8 \\4 \\ + .8 \\6 \end{vmatrix}$	40 28 9.07 40 29 59.60 40 43 4.70 40 37 44.34 40 40 10.13	+621.55 $-641.43$	+ 16	$ \begin{array}{ccccc}  & - & 5 \\  & + & 5 \\  & - & 16 \\  & + & 3 \\  & + & 5 \end{array} $	$\begin{vmatrix} +13 \\ +11 \\ -12 \\ -2 \\ -6 \end{vmatrix}$	6 7 11	23.25 22.75 23.22 22.80 22.60	64
ug. 9	11 12 III 1 2 3	D	33.2097 iv 14.5050 13.2903 30.9057 iv 32.5387 iv	26.3290 29.8677 5.8177 ii	$^{+\ 43}_{+226} \ -\ 74$	$\begin{vmatrix} + .5 \\3 \\ +1.5 \end{vmatrix}$	$\begin{array}{r}5 \\ +.9 \\ +1.0 \\ +1.3 \\ +1.7 \end{array}$	40 24 37.25 40 41 20.89 40 43 21.93 40 46 57.97 40 26 5.48	-459.04 $-659.69$ $-1034.10$	$\begin{vmatrix} + & 12 \\ + & 17 \\ -1.28 \end{vmatrix}$	$\begin{array}{rrrr} - & 32 \\ + & 20 \\ + & 7 \\ + & 40 \\ + & 18 \end{array}$	$     \begin{array}{r}       +21 \\       -9 \\       -15 \\       -24 \\       +18     \end{array} $	6 9 11	23.33 22.14 22.42 22.86 23.17	72
	4 5 6 7 8		32.4537 iv 14.5917 22.0567 18.6363 22.4127	8.2793 ii 25.4540 17.6593 20.9653 16.5063	$egin{bmatrix} + & 14 \\ + & 3 \\ - & 8 \\ - & 7 \\ - & 29 \end{bmatrix}$	$\begin{vmatrix} + .7 \\ +2.6 \\ +1.3 \end{vmatrix}$	$\begin{vmatrix} +2.0 \\ + .1 \\ +1.3 \\ +1.7 \\ +2.1 \end{vmatrix}$	40 26 10.70 40 31 47.82 40 38 13.09 40 37 21.06 40 33 53.13	$\begin{array}{r} + 434.63 \\ - 151.16 \\ - 58.86 \end{array}$	$\begin{vmatrix} - & 11 \\ + & 4 \\ + & 2 \end{vmatrix}$	$\begin{array}{r} + & 45 \\ + & 13 \\ + & 58 \\ + & 42 \\ + & 70 \end{array}$	$     \begin{array}{r}       +18 \\       +9 \\       -3 \\       -2 \\       +4     \end{array} $	7 6 6	23.90 22.63 22.58 22.68 23.12	70
	IV 1 2 3 4	D	25.9370 20.1017 19.1140 11.6737 21.4637	11.4433 18.5273 20.1817 28.2053 16.3267	-164 10 3 11 51	$\begin{vmatrix} +1.5 \\ +1.5 \\ +1.0 \end{vmatrix}$	$\begin{vmatrix} -1.3 \\ + .9 \\ +1.7 \\ -2.2 \\ +1.5 \end{vmatrix}$	40 42 29.07 40 37 2.67 40 36 48.68 40 29 25.09 40 38 31.28	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} + & 2 \\ + & 1 \\ - & 16 \end{vmatrix}$	$\begin{array}{r} - & 13 \\ + & 35 \\ + & 45 \\ - & 11 \\ + & 51 \end{array}$	$     \begin{bmatrix}       -10 \\       -1 \\       -9 \\       +13 \\       -4     \end{bmatrix} $	13 11 7	23.02 23.38 22.17 22.95 22.15	70 68 68
	5 6 7 8 9		11.4110 ii 30.7027 iv 13.3893 ii 27.5413 18.3020	28.3890 iv 10.2720 iv 28.4150 iv 11.5790 21.5840	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} -0.6 \\ +1.7 \\ +2.4 \end{array}$	$ \begin{array}{c c} + .4 \\2 \\ +1.7 \\ +1.2 \\ + .8 \end{array} $	40 29 11.67 40 28 10.06 40 30 0.58 40 43 5.64 40 37 45.17	$\begin{vmatrix} + & 8 & 11.26 \\ + & 6 & 19.78 \end{vmatrix}$	$\begin{vmatrix} +1.34 \\ +1.38 \\ + 16 \end{vmatrix}$	$\begin{vmatrix} + & 10 \\ - & 12 \\ + & 49 \\ + & 54 \\ + & 19 \end{vmatrix}$	$+13 \\ +11$	$\begin{bmatrix} 5 \\ 6 \\ 7 \end{bmatrix}$	22.56 22.72 22.40 22.88 22.51	6
ug. 10	10 11 12 III 1 2		23.7743 $27.7503$	24.7423 33.0077 iv 11.9157 11.1680 33.6800 iv	-224 $-78$	$\begin{bmatrix}3 \\7 \\ -1.0 \end{bmatrix}$	$ \begin{array}{c c}7 \\5 \\9 \\ -1.1 \\ +1.4 \end{array} $	40 40 11.05 40 24 38.13 40 41 21.75 40 43 22.10 40 46 58.16	$ \begin{array}{r} +11 & 43.49 \\ -4 & 59.25 \\ -6 & 59.04 \end{array} $	$\begin{vmatrix} +1.25 \\ + 12 \\ + 17 \end{vmatrix}$	- 33 - 11 - 23 - 30 + 45	$+21 \\ -9$	6 7 9	22.62 23.03 22.37 22.87 22.56	666
	3 4 5 6 7			31.8207 is 31.6727 is 15.0437 23.0067 18.9210	$ \begin{array}{r r}  - 15 \\  + 46 \\  + 31 \end{array} $	+3.4	$ \begin{array}{r} +3.7 \\ +1.9 \\ -1.2 \\ -1.2 \\ -2.7 \end{array} $	40 26 5.71 40 26 10.93 40 31 48.07 40 38 13.35 40 37 21.33	$+10\ 10.62$	$\begin{vmatrix} +1.29 \\ - & 11 \\ + & 4 \end{vmatrix}$	+ 83 + 78 - 57 - 47 - 69	$\begin{vmatrix} +18 \\ +9 \\ -3 \end{vmatrix}$	$\begin{bmatrix} 6 \\ 7 \\ 6 \end{bmatrix}$	23.74 23.86 22.80 22.74 22.74	666
	8 9 IV 1 2 3	R	17.0610 13.6693 20.2323 22.4353 28.0990	22.9917 28.1710 21.8077 21.4093 11.5813	+116 $-13$ $-15$	$egin{array}{c} -1.4 \\ + .2 \\6 \\ -2.2 \\ + .3 \end{array}$	$ \begin{array}{c c} -1.8 \\ +2.0 \\ .0 \\ -2.0 \\ .0 \end{array} $	40 42 29.40 40 37 2.97 40 36 49.00	$ \begin{array}{cccc} - & 6.93 \\ - & 39.86 \\ - & 25.90 \end{array} $	$\begin{array}{c c} + & 15 \\ + & 2 \\ + & 1 \end{array}$	- 9 - 60	-10	5 13 11	22.95 22.85 23.16 22.61 23.08	666
	4 5 7 8 9		18.2380 28.2227 iv 26.8863 iv 13.0463 21.7623	10.0000	T .	~	0	40 38 31.60 40 29 12.02 40 30 0.92 40 43 5.97 40 37 45.47	$ \begin{array}{r} + 7 & 8.67 \\ + 6 & 20.43 \\ - 6 & 43.24 \end{array} $	$\begin{vmatrix} +1.36 \\ +1.38 \\ + 16 \end{vmatrix}$	$ \begin{array}{rrrr}  & 26 \\  & 27 \\  & 39 \\  & 23 \\  & 10 \end{array} $	$+12 \\ +11 \\ -12$	6 5 7	22.15 22.50 22.50 22.61 23.08	6
ug. 20	10 11 12 III 2 3	D	24.1673 34.4823 iv 13.8933 32.1530 iv 32.3123 iv	15.1137 6.6900 i 25.7413 7.0097 i 8.0093 i	i — 19	+1.1	+1.1	40 40 11.38 40 24 38.45 40 41 22.06 40 46 59.41 40 26 7.35	+1142.76 $-459.49$ $-1035.63$	$\begin{vmatrix} +1.25 \\ + 12 \\ -1.28 \end{vmatrix}$	+ 32	$+21 \\ -9$	6 7 11	23,21 23,31 22,44 22,69 23,04	6 6 6

1001	G4	<b>n</b>	36			Lev	els.	1/5 + 5/)		Correct	ons.			T	Ther-
1894.	Star.	P	Micro	weter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom.
Aug. 20	III 5 6 7 8 9		21.8910 18.5790 23.0963	25.0670 17.4120 21.9957 17.2647 12.7880	$ \begin{array}{r} -30 \\ -14 \\ +8 \\ +9 \\ +11 \end{array} $	+2.0	$+1.5 \\ +1.9 \\ +2.1 \\ -1.0$	0 / 40 82 40 31 49 82 40 38 14,93 40 37 23 45 40 33 55.65 40 42 31.70	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	+ 2	+ 40 + 69 + 59 - 0 - 8	$egin{array}{c} + & 9 \\ - & 3 \\ - & 2 \\ + & 4 \\ -10 \\ \end{array}$	7 6 6 6 5	40 46 22.58 22.49 22.98 23.15 23.26	69.1 68.8
	IV 1 2 3 4 5	D		18.1190 19.8210 26.4390 15.7903 28.0667iv	- 15 - 7 -253 - 74 + 11	$ \begin{array}{r r} -4.0 \\6 \\ -1.2 \end{array} $	6 -4.4 -1.6 -1.5 1	40 37 5.44 40 36 51.60 40 29 28.31 40 38 34.31 40 29 15.04	$ \begin{array}{r}  - 28.08 \\ + 655.12 \\ - 211.61 \end{array} $	$\begin{vmatrix} + & 1 \\ - & 16 \\ + & 5 \end{vmatrix}$	- 20 -1.21 - 29 - 39 - 14	$     \begin{array}{r}       -1 \\       -1 \\       +13 \\       -4 \\       +12     \end{array} $	7 10	22.82 22.42 23.18 22.42 23.02	65.1 65.1
	6 7 8 9 10		28.8227 iv 11.8333 ii 26 6020 17.5217 15.4743	9.4947 ii 26.7490 iv 10.5203 20.8960 24.6667		$\begin{array}{ c c c } + .5 \\ + .7 \\ + .7 \end{array}$	$ \begin{array}{r} -1.8 \\ -2 \\ +.8 \\4 \\ +.5 \end{array} $	40 28 13.47 40 30 3.97 40 43 8.92 40 37 48.08 40 40 14.36	$ \begin{array}{r} + 6 17.19 \\ - 6 46.07 \\ - 1 25.25 \end{array} $	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$egin{pmatrix} - & 61 \\ + & 5 \\ + & 21 \\ + & 6 \\ + & 8 \end{matrix}$	$     \begin{array}{r}       +13 \\       +11 \\       -12 \\       -2 \\       -6     \end{array} $	6 7 11	23.05 22.76 23.17 23.01 22.11	64. <b>9</b> 63.7
Aug. 21	11 12 III 1 2 3	R	25.3800 28.1383 8.4330 ii	33.0940 iv 13.3847 11.4787 33.5760 iv 31.6303 iv	- 65 - 28 + 45	$\frac{1}{1} \cdot \frac{9}{6}$	$\left  egin{array}{c} +1.8 \\ +.2 \\ +1.1 \\ +.6 \\ +1.6 \end{array} \right $	40 24 41.34 40 41 24.88 40 43 23.34 40 46 59.57 40 26 7.54	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} \dot{+} & 12 \\ + & 17 \\ -1.28 \end{vmatrix}$	$egin{pmatrix} + & 59 \\ + & 17 \\ + & 23 \\ + & 19 \\ + & 50 \\ \end{matrix}$	$     \begin{array}{r}       +21 \\       -9 \\       -15 \\       -24 \\       +18     \end{array} $	9	23.78 22.05 22.56 22.56 23.67	64.1 65.8 65.1
	4 5 6 7 8		8.3317 ii 26.8327 18 4393 21.7157 17.6883	32.4220 iv 16.0437 22.8666 19.3160 23.5060	+ 14  +135  + 24  + 9  + 32	$\begin{bmatrix} -1.5 \\ -3.2 \\ .0 \end{bmatrix}$	$ \begin{array}{r} -2.2 \\7 \\ -2.8 \\ +1.2 \\6 \end{array} $	40 26 12.79 40 31 50.03 40 38 15.59 40 37 23.68 40 33 55.89	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} - & 11 \\ + & 4 \\ + & 2 \end{vmatrix}$	- 42 - 33 - 87 + 15 - 36	+18 + 9 - 3 - 2 + 4	7 6 6	22,99 22.86 22.80 23.20 22.74	61.7 60.7
Aug. 22	9 III 1 2 3 4		13.3310 12.5590 30.6030 iv 32.5860 iv 30.8083 iv	8.3010 ii	$     \begin{array}{r}             +92 \\             +125 \\             -90 \\             +17 \\             -46 \\     \end{array} $	$+.7 \\ +1.5$	+.7 $+2.3$ $+.8$ $-1.9$ $+1.1$	40 42 31.95 40 43 23.48 40 46 59.73 40 26 7.73 40 26 12.91	-10 36.20	$\begin{vmatrix} + & 17 \\ -1.28 \\ +1.29 \end{vmatrix}$	$ \begin{array}{rrrr}  & 4 \\  & 40 \\  & 48 \\  & 48 \\  & & 46 \end{array} $	$-10 \\ -14 \\ -25 \\ +18 \\ +18$	9 11 5	22.57 23.06 22.45 22.79 24.08	61.1 67.8 67.0
	5 6 7 8 9		15.3690 22.8587 19.1793 24.2670 26.7193	26.1620 18.3827 21.6013 18.4723 12.0987	$     \begin{array}{r}     + 73 \\     + 24 \\     + 7 \\     + 72 \\     - 76     \end{array} $	$\begin{array}{c} +1.5 \\ +.2 \\ +1.0 \end{array}$	$ \begin{array}{c c} -1.3 \\1 \\4 \\ + .4 \\ + .5 \end{array} $	40 31 50.24 40 38 15.82 40 37 23.93 40 33 56.15 40 42 32.21	$\begin{array}{c} -153.22 \\ -11.25 \\ +226.69 \end{array}$	$\begin{vmatrix} + & 4 \\ + & 2 \\ - & 6 \end{vmatrix}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$     \begin{array}{r}             + 9 \\             - 3 \\             - 2 \\             + 4 \\             - 10     \end{array} $	6	23.09 22.89 22.72 23.09 23.20	66.4 65.8 66.4 66.5
	IV 1 2 3 4 5		19.3670 21.9633 28.8673 18.6707 29.5373 iv	21.0837 20.7980 12.4997 23.9163 12.6963 i	$\begin{array}{c} + & 3 \\ + & 14 \\ + & 95 \\ + & 59 \\ - & 30 \end{array}$	$\begin{array}{c c} +1.0 \\4 \\ + .3 \end{array}$	$\begin{vmatrix} + .7 \\ + .8 \\1 \\ + .5 \\ + .1 \end{vmatrix}$	40 37 5.98 40 36 52.16 40 29 28.93 40 38 34.89 40 29 15.69	$ \begin{array}{r}  - & 29.50 \\  + & 654.05 \\  - & 212.77 \end{array} $	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$egin{pmatrix} + & 22 \\ + & 26 \\ - & 8 \\ + & 11 \\ - & 5 \end{bmatrix}$	$-1 \\ +13$	10	22.93 23.03 22.94 22.34 22.88	65.0 64.7
	6 7 8 9 10			30.2057 in 12.9177 in 29.0953 19.6203 15.2897	i — 16 +150	$\begin{vmatrix} - & .2 \\ - & .8 \\ + & .9 \end{vmatrix}$	$\begin{vmatrix} + .4 \\ + .1 \\4 \end{vmatrix}$	40 30 4.62	$ \begin{array}{r} + 6 & 16.54 \\ - 6 & 46.32 \\ - 1 & 26.03 \end{array} $	$+1.38 \\ +16$	$egin{pmatrix} + & 74 \\ + & 2 \\ - & 11 \\ + & 9 \\ + & 39 \end{pmatrix}$	$\begin{vmatrix} +11 \\ -12 \\ -2 \end{vmatrix}$	6 7 11	23.27 22.73 23.22 22.80 22.82	64.1 63.8
Aug, 23		R	34.9057 iv 15.9587 28.1333 8.0927 ii 7.2037 ii	7.2210 i 27.9050 11.4700 33.2430 i 31.4823 i	+201	$\begin{vmatrix}1 \\ + .2 \end{vmatrix}$	+.8 + 1.3	40 41 25.46 40 43 23.60 40 46 59.87	$\begin{array}{cccc} -5 & 2.54 \\ -7 & 1.22 \\ -10 & 35.93 \end{array}$	$\begin{array}{c} + & 12 \\ + & 17 \\ -1.28 \end{array}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	- 9 15 24	9 11	23.29 23.10 22.68 23.16 23.44	63.1 73.3 72.6
	4 5 6 7 8		7.8000 ii 27.0850 18.0050 21.8583 17.3257	32 8870 in 16.3300 22.4987 19.4193 23.1223	$+160 \\ + 11 \\ + 14$	$ \begin{array}{c} + .5 \\2 \\4 \\ +1.1 \\ + .8 \end{array} $	$egin{bmatrix}2 \\ -1.5 \\ .0 \\ .0 \\ + .9 \\ \hline \end{array}$	40 31 50.44 40 38 16.05 40 37 24.17	+432.32 $-153.64$ $-11.70$	$\begin{array}{c c} - & 11 \\ + & 4 \\ + & 2 \end{array}$	$egin{pmatrix} + & 6 \\ - & 20 \\ - & 6 \\ + & 18 \\ + & 25 \end{bmatrix}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{vmatrix} 7 \\ 6 \\ 6 \end{vmatrix}$	23.78 22.61 22.42 22.71 23.27	72.0

1894.	Star.	P	Micro	meter	C	$L\epsilon v$	els.	1/2: 2/\		Correct	ions.			Latitude.	Ther-
	star.	P	Micro	meter.		A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Lamuae.	mom
Aug. 23	III 9 IV 1 2 3 4	D	19.7363 17.6880 12.2017	27.0793 18.0113 18.8370 28.5707 14.7400	-16 - 17	-3.0 0	$\begin{array}{ c c c } + .1 \\ -1.6 \\ -2.2 \\6 \\ .0 \end{array}$	0 / 1/4 40 42 32.47 40 37 6.27 40 36 52.46 40 29 29.25 40 38 35.20	+654.00	$egin{pmatrix} + & 15 \\ + & 2 \\ + & 1 \\ - & 16 \\ + & 5 \end{bmatrix}$	$ \begin{array}{rrr}  & 27 \\  & 38 \\  & 74 \\  & 7 \\  & + 16 \end{array} $	-10 $-1$ $-1$ $+13$ $-4$	13 11 7	40 36 22.56 22.46 22.82 23.22 22.71	71.2 66.6 <i>a</i> 67.3 <i>a</i>
	5 6 7 8 9		11.7493 ii 30.5110 iv 12.9800 ii 27.8597 18.9597		4	$\begin{array}{c}6 \\2 \\3 \end{array}$	$ \begin{array}{r}8 \\ +.5 \\ -1.5 \\ -1.4 \\ +.2 \end{array} $	40 29 16.03 40 28 14.46 40 30 4.96 40 43 9.87 40 37 48.92	$\left  egin{matrix} + & 8 & 7.14 \\ + & 6 & 16.37 \\ - & 6 & 46.47 \end{matrix} \right $	+1.38 + 16	$\begin{array}{c c} - & 18 \\ - & 3 \\ - & 22 \\ - & 22 \\ + & 2 \end{array}$	$     \begin{array}{r}       +12 \\       +13 \\       +11 \\       -12 \\       -2     \end{array} $	5 6 7	22.74 23.09 22.66 23.29 22.67	66.7
Aug. 24	10 12 III 1 2 3	D	14,9030 26,0000 12,8563 31 8997iv 31,6080iv		·  33	+ .3 +1.6 +2.5	$ \begin{array}{r} -1.3 \\ -3 \\ +1.1 \\ +2.9 \\ +8 \end{array} $	40 40 15.31 40 41 25.77 40 43 23.71 40 47 0.00 40 26 8.08	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{vmatrix} + & 12 \\ + & 17 \\ -1.28 \end{vmatrix}$	$\begin{array}{ c c c c c c }\hline - & 53 \\ + & 1 \\ + & 40 \\ + & 77 \\ + & 5\end{array}$		7 9 11	23.22 22.51 22.53 22.79 22.77	65.8 65.6 74.7 74.4
	4 5 6 7 8		31.6063iv 14.5813 22.3337 18.3140 23.1857	7.5380 ii 25.3637 17.8407 20.7673 17.4027	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} + .4 \\ + .9 \\ + .5 \end{array}$	+1.8 + .1 + .3 1 +1.0	40 31 50.63	+432.60 $-153.60$	$\begin{vmatrix} - & 11 \\ + & 4 \end{vmatrix}$	$\begin{vmatrix} + & 40 \\ + & 8 \\ + & 18 \\ + & 6 \\ + & 24 \end{vmatrix}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	7 6 6	23.76 23.36 22.91 22.52 23.17	74.1 73.5
	IV 2 3 4 5	R	27.9497 22.6253 30.6687 18.2820 28.0990 iv	13.3253 21 4583 14.3540 23.5193 11.2923 i	$\begin{array}{c c} + & 49 \\ + & 21 \\ + & 357 \\ + & 49 \\ + & 11 \end{array}$	$\begin{vmatrix} -2.1 \\ -9 \end{vmatrix}$		40 36 52.76 40 29 29.59	$\begin{array}{c c} - & 29.56 \\ + & 6 & 53.38 \\ - & 2 & 12.52 \end{array}$	$\frac{1}{-16}$	- 6 - 55 - 12 - 20 - 31	$     \begin{array}{r}       -10 \\       -1 \\       +13 \\       -4 \\       +12     \end{array} $	11 7 10	22.90 22.76 22.89 22.90 22.54	72.4 68.7 68.1
	8 9 10		9.9420 ii 27.1663 iv 13.0170 22.2937 23.8577	$^{i}$ 29.1893 $^{i}$ 12.2910 $^{i}$ 29.0863 18.8887 14.6477	$\begin{array}{c c} + & 5 \\ + & 12 \\ + & 148 \\ + & 18 \\ - & 60 \end{array}$	$\frac{3}{3} - \frac{7}{0}$	8 $5$	40 30 5.30 40 43 10.21 40 37 49.23	$ \begin{array}{r} + 6 & 16.11 \\ - 6 & 46.64 \\ - 1 & 26.13 \end{array} $	+ 16	$egin{bmatrix} + & 21 \\ - & 6 \\ - & 22 \\ - & 6 \\ + & 1 \end{bmatrix}$	-12 - 6	6 7 11	23.16 22.90 23.46 23.12 23.05	68.2 67.4
Aug 31	11 12 III 1	R	14.2130 27.7403	$7.6217^{i}$ $26.2167$ $11.0697$ $33.6010^{i}$ $31.2607^{i}$	+ 21	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{bmatrix}7 \\2 \\6 \end{bmatrix}$	40 41 26.10 40 43 24.07 40 47 0.51	$ \begin{array}{rrrr} -5 & 3.58 \\ -7 & 1.26 \\ -10 & 36.11 \end{array} $	$\begin{array}{c c} + & 12 \\ + & 17 \\ -1.28 \end{array}$	$ \begin{array}{rrrr}  - & 20 \\  - & 17 \\  - & 6 \\  - & 6 \\  + & 26 \end{array} $	- 9 15 24	9 11	23.22 22.50 22.86 22.93 23.21	67.6 67.5 66.6
	£ ()		7.8543 ii 25.5117 18.0173 21.6737 18.0467	31.8903 i 14.7747 22.5273 19.1957 23.7863	v — (+ 13 + 15 + 4	$\begin{bmatrix} 3 & -0.5 \\ -0.3 \\ -2.2 \\ +0.4 \\ -1.1 \end{bmatrix}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	40 31 51.31 40 38 17.32 40 37 25.55	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} - & 11 \\ + & 4 \\ + & 2 \end{vmatrix}$		$\begin{array}{c c} + 9 \\ - 3 \\ - 2 \end{array}$	6 6	23.27 22.75 22.89 22.96	
	IV 1	D	11.2697 19.9543 25.6217 10.6157 21.8007	25.9717 18.1503 26.8560 26.9010 16.4523	$\begin{array}{c}17 \\ +6 \\17 \end{array}$	$\begin{bmatrix} -1.5 \\ +2.5 \\ -1.8 \\ +1.5 \\ +2.3 \end{bmatrix}$	$\begin{vmatrix} \dot{-} & .2 \\ + & .3 \end{vmatrix}$	40 42 34.04 40 37 8.21 40 36 54.51 40 29 31.55 40 38 37.39	$\begin{array}{c c} - & 31.38 \\ + & 6 & 51.28 \end{array}$	$\begin{vmatrix} + & 1 \\ - & 16 \end{vmatrix}$	$\begin{vmatrix} + & 57 \\ - & 31 \\ + & 27 \end{vmatrix}$		14 11 7	22.93 23.14	63.4 64.1
	1	3	10.9693 <sup>1</sup> 29.3487 <sup>1</sup> 13.8613 <sup>1</sup> 27.8860 18.9963	27.6527 <sup>i</sup> v 10.1833 <sup>i</sup> 28.6527 <sup>i</sup> 11.6933 22.4960	v + 29 + 50 - 50 + 2	$egin{array}{c c} +2.2 \\ -1.6 \\ 9 \\ +.8 \\ 0 \\ +1.4 \\ +1.2 \end{array}$	$ \begin{array}{c c} +1.1 \\8 \\ + .9 \\ + .1 \\ + .6 \end{array} $	40 28 16.96 40 30 7.47	$\begin{vmatrix} + & 8 & 4.55 \\ + & 6 & 13.81 \\ - & 6 & 49.31 \end{vmatrix}$	$\begin{vmatrix} +1.34 \\ +1.38 \\ + 16 \end{vmatrix}$	$\begin{vmatrix} - & 36 \\ + & 24 \\ + & 24 \end{vmatrix}$	+12 +13 +11 -12 2	5 6 7	22.36 22.67 23.07 23.36 22.97	-
Sep.	III :	5	$25.7873 \\ 13.9473$	24.8900 33.7533 <sup>1</sup> 13.6817 30.6133 7.2417	$\begin{vmatrix} -2 \\ +33 \end{vmatrix}$	$\begin{vmatrix} 2 & + & .1 \\ 9 & - & .1 \\ 2 & + & .7 \end{vmatrix}$	3 + .1	40 24 44.78 40 41 28.20 40 43 24.58	1 11 97 98	$\begin{vmatrix} +1.25 \\ 3 \\ + 12 \\ 0 \\ + 17 \end{vmatrix}$	$\begin{vmatrix} - & 2 \\ - & 0 \\ + & 43 \end{vmatrix}$	+21 $-5$ $-15$	l 6	23.58 22.32 22.93	62.3 70.8

						Lev	els.			Correct	ions.				/// // // // // // // // // // // // //
1894.	Star.	P	Micro	neter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r	Mer	Latitude.	Ther- mom.
Sep.	III 3 5 6 7 8		22.7270 18.4030	6.5717 ii 22.6340 18.1380 20.9327 17.1180		$+1.2 \\ -1.3$	$egin{array}{c}5 \\ +.2 \\ +1.1 \\6 \\ +.5 \end{array}$	40 26 9.66 40 31 52.50 40 38 18.46 40 37 26.78 40 33 59.19	+430.00 $-156.06$ $-13.94$	$\begin{vmatrix} - & 11 \\ + & 4 \\ + & 2 \end{vmatrix}$	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$egin{array}{c} +17 \\ +9 \\ -3 \\ -2 \\ +4 \end{array}$	7   6   6	0 36 22.84 22.75 22.80 22.62 23.09	71.0 71.1
Sep. 11	III 1 2 3 4	$\mathbf{R}$	7.8913 <sup>ii</sup> 8.3240 <sup>ii</sup>	12.1027 11.4837 33.0983 iv 32.5363 iv 32.7473 iv	$ \begin{array}{c c} -68 \\ -27 \\ +23 \\ +15 \\ +26 \end{array} $	-2.3	3 -1.9 .0 4 -2.2	40 47 1.29	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\left  { + 17 \atop {1.19 \atop { +1.20 \atop { +1.20 \atop { -1.20 \atop { -1.19 \atop { -1.20 \atop {$	$ \begin{array}{cccc} + & 7 \\ - & 61 \\ - & 6 \\ - & 10 \\ - & 60 \end{array} $	$     \begin{array}{r}     -11 \\     -15 \\     -25 \\     +17 \\     +18   \end{array} $	11 5	22.87 22.90 22.55 23.38 23.59	71.0 64.8 63.9
	5 6 7 8 9		18.1220 21.0457 16.8167	15.7207 22.7227 18.5020 22.4777 28.1737	$\begin{vmatrix} + & 17 \\ - & 6 \\ - & 18 \end{vmatrix}$	$egin{array}{c} -1.2 \\ + .6 \\ -1.4 \\ -1.4 \\ +1.6 \\ \end{array}$	$egin{array}{c}5 \\ +1.7 \\ -1.5 \\8 \\ +3.2 \end{array}$	40 31 52.83 40 38 18.87 40 37 27.26 40 33 59.72 40 42 36.01	$ \begin{array}{r}     -156.36 \\     -14.30 \\     +223.08 \end{array} $	$\begin{vmatrix} + & 4 \\ + & 2 \\ - & 6 \end{vmatrix}$	$ \begin{array}{rrrr}  - & 26 \\  + & 31 \\  - & 41 \\  - & 22 \\  + & 66 \end{array} $	$     \begin{array}{r}             +9 \\             -3 \\             -2 \\             +4 \\             -10     \end{array} $	$\begin{bmatrix} 6 \\ 6 \\ 6 \end{bmatrix}$	22.87 22.89 22.61 22.62 22.59	62.6 61.5 61.5
	IV 1 2 3 4 5		19.5327 21.3173 29.3183 17.8467 28.0847 iv	21.1143 19.9573 13.1633 23.2963 11.4720 ii	$egin{pmatrix} + & 2 \\ + & 6 \\ +175 \\ + & 28 \\ + & 7 \end{bmatrix}$	— .1 —1.1	.0 .0 4 2 -1.1	40 29 34.53 40 38 40.23	$ \begin{array}{r}     -34.40 \\     +648.88 \\     -217.85 \end{array} $	$\begin{vmatrix} + & 1 \\ - & 16 \\ + & 5 \end{vmatrix}$			11 7 10	23.27 22.88 23.22 22.44 22.88	57.8 58.2
	6 7 8 9 10	VI TOTAL DE LA CONTRACTOR DE LA CONTRACT	10.1067 ii 27.2463 iv 12.1304 23.1643 24.8663	29.1340 i	$\begin{vmatrix} + & 12 \\ + & 4 \\ + & 38 \\ + & 42 \end{vmatrix}$	$\begin{array}{c} + .9 \\ -1.4 \\9 \end{array}$	$ \begin{array}{c c}1 \\ .0 \\ + .1 \\ + .2 \\1 \end{array} $	40 30 10.77 40 43 15.51 40 37 53.98	+610.71 $-651.52$ $-131.04$	$\begin{vmatrix} +1.29 \\ + & 16 \\ + & 3 \end{vmatrix}$	$egin{pmatrix} + & 13 \\ - & 22 \\ - & 11 \\ - & 4 \\ + & 33 \end{bmatrix}$	$+10 \\12 \\3$	$\begin{array}{c} 6 \\ 7 \\ 11 \end{array}$	22.85 22.71 23.99 23.01 23.24	57.2 57.8
Sep. 12	11 12 III 1 2 3	D		26.9157 29.9187 7.2647	$+85 \\ +229$	$\begin{vmatrix} +1.9 \\ + .3 \end{vmatrix}$	+ .2	40 41 31.35 40 43 24.59 40 47 1.28	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} + & 12 \\ + & 17 \\ -1.19 \end{vmatrix}$	$\begin{array}{ c c c c c }\hline - & 11 \\ + & 54 \\ + & 7 \\ + & 16 \\ - & 60\end{array}$	—10 —15 —25	9 11	23.22 22.77 22.89 23.30 22.99	58.4 62.5 62.1
	8 9		31.2757 iv 21.4783 18.4243 22.7877 25.9970	7.2857 i 16.8743 20.9777 17.1267 11.2190	- 34 - 8 - 2 -110	$egin{array}{c} + .9 \\ -1.1 \\ +1.1 \\ +1.2 \\ \end{array}$	$\begin{vmatrix} + .8 \\5 \\1 \\1 \end{vmatrix}$	40 38 18.94 40 37 27.34 40 33 59.81	-156.31 $-14.54$ $+223.12$	$\begin{vmatrix} + & 4 \\ + & 2 \\ - & 6 \end{vmatrix}$	$\begin{array}{rrrr} - & 12 \\ + & 24 \\ - & 24 \\ + & 16 \\ + & 18 \end{array}$	$\begin{bmatrix} -3 \\ -2 \\ +3 \end{bmatrix}$	6 6 6	23.04 22.94 22.62 23.12 23.22	61.3
	IV 1		20.3370 18.9130 12.0733 21.5480 11.1020	18.4220 20.2737 28.2203 16.0823 27.68571	+ 20 $- 59$	9 + .5	-1.8 2	40 36 57.36 40 29 34.74 40 38 40.44	$\begin{array}{c c} & 34.39 \\ + 6 & 48.28 \\ - 2 & 18.04 \end{array}$	$\begin{vmatrix} + & 1 \\ - & 16 \\ + & 5 \end{vmatrix}$	$egin{pmatrix} + & 22 \\ - & 63 \\ - & 17 \\ + & 5 \\ + & 5 \end{bmatrix}$	$-1 \\ +13 \\ -3$	11 7 10	22.83 22.45 22.89 22.57 22.74	60.8 60.6 60.5
	6 7 8 9			10.5127 27.0537 10.1647 21.5347 24.3323	$\begin{array}{c c}  & +12 \\  & -238 \\  & -10 \end{array}$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$-2.2 \\ -1.5$	40 28 20.46 40 30 11.02 40 43 15.75 40 37 54.20 40 40 21.39	$\begin{array}{c c} + 6 & 10.74 \\ \hline - 6 & 51.97 \end{array}$	$\begin{array}{c c} +1.29 \\ 7 + 16 \end{array}$	$\begin{vmatrix} - & 53 \\ - & 27 \\ + & 53 \end{vmatrix}$	<del>-</del> 3	6 7 11	22.68 23.62 22.79	60.4 59.6
Sep. 15		R	25.3267 10.0993 i 8.1270 i	33.3563 <sup>1</sup> 13.0857 35.2947 <sup>1</sup> 32.3433 <sup>1</sup> 32.5770 <sup>1</sup>	$\begin{array}{c c} -8! \\ +12! \\ iv + 8! \end{array}$	$\begin{vmatrix} 5 & +1.9 \\ 3 & +1.3 \\ 8 & -2.4 \end{vmatrix}$	$\begin{vmatrix} +1.8 \\ +.5 \\ -2.8 \end{vmatrix}$	40 41 31.59 40 47 1.32	$\begin{vmatrix} -10 & 37.31 \\ +10 & 12.26 \end{vmatrix}$	$\begin{vmatrix} + & 12 \\ 1 & -1.19 \\ 3 & +1.20 \end{vmatrix}$	$\begin{vmatrix} + & 53 \\ + & 27 \\ - & 74 \end{vmatrix}$	-10	7 5 11 7 5		76.0
	1 6	3	26.3870 18.5173 21.9403 18.3907 12.3580	15.7417 23.1330 19.3517 24.0507 27.1643	+ 160	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{ c c c } + .5 \\ -1.8 \end{array}$	40 31 53.04 40 38 19.16 40 37 27.60 40 34 0.10 40 42 36.44	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} 8 & + & 4 \\ 9 & + & 2 \\ 5 & - & 6 \end{vmatrix}$	$\frac{+}{-}$ 29	— 8 — 8	8   6 8   6 8   6	22.46 22.88	75.2

		Ī.				Lev	els.			Correct	ions.				Ther-
1894	Star.	P	Micro	meter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r	Mer	Latitude.	mom.
Sep. 15		1 R	19.2837 21.1520 26.5633 17.3127 27.9283 iv	21.2160 19.7447 10.4297 22.7840 11.3793 ii	$ \begin{array}{r} + 2 \\ + 4 \\ -211 \\ + 3 \\ + 11 \end{array} $	+ .7	$+1.7 \\ +2.2 \\ +1.4 \\ +.1 \\ +.8$	40 38 41.03	$\begin{array}{r} - & 48.86 \\ - & 35.59 \\ + & 647.36 \\ - & 218.33 \\ + & 658.42 \end{array}$	$+\  \   \frac{1}{-\  \   16}$	$egin{pmatrix} + & 44 \\ + & 53 \\ + & 29 \\ - & 5 \\ + & 24 \end{bmatrix}$	$     \begin{array}{r}       -4 \\       -1 \\       +13 \\       -3 \\       +12     \end{array} $	7	40 36 23.08 22.95 23.05 22.77 22.69	72.4
	;	6 7 8 9	9.4767 ii 27.0147 iv 12.2427 22.3160 25.1927	28.4887 iv 12.4215 ii 28.5840 18.7053 15.7203		$\left  { \begin{array}{c} + \ .2 \\ + \ .9 \\ - \ .4 \end{array}} \right $	$egin{array}{c} -0.4 \\ +2.0 \\ +1.1 \\ -1.7 \\ +0.8 \end{array}$	40 28 21.16 40 30 11.73 40 43 16.45 40 37 54.82 40 40 22.12	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{array}{c} +1.29 \ + \ 16 \ + \ 3 \ \end{array}$	$egin{pmatrix} -&2\ +&28\ +&29\ -&28\ +&37 \end{bmatrix}$	$^{+13}_{+10}_{-12}_{-3}_{-7}$	7	23.26 22.45 23.56 23.31 22.99	70.9 69.9
Oct. 2	1 IV	2	33.3290 <sup>iv</sup> 14.0213 21.0260 19.5810 11.5617	5.9210 ii 26.2703 18.9793 21.1090 27.5290		$\begin{vmatrix} + .3 \\ +1.9 \\3 \end{vmatrix}$	$egin{pmatrix} + .3 \\ +1.2 \\ +1.2 \\ .0 \\ + .3 \end{bmatrix}$	40 24 48.91 40 41 32.32 40 37 14.45 40 37 1.22 40 29 39.09	$ \begin{array}{rrr} -5 & 9.72 \\ -51.75 \\ -38.74 \end{array} $	$\begin{vmatrix} + & 12 \\ + & 1 \\ + & 1 \end{vmatrix}$	$egin{bmatrix} -&4\\ +&20\\ +&45\\ -&5\\ +&39 \end{bmatrix}$	$ \begin{array}{r} +20 \\ -10 \\ -2 \\ -1 \\ +13 \end{array} $	7 13 11	23.16 22.89 23.27 22.54 23.12	70.9 62.5
		4 5 6 8		16.5310 27.4760 <sup>iv</sup> 11.4707 <sup>ii</sup> 11.4903 20.6203		$\begin{vmatrix} +1.1 \\ -1.2 \\ +1.2 \end{vmatrix}$	$ \begin{array}{c c}2 \\ + .1 \\9 \\4 \\1 \end{array} $	40 38 44.64 40 29 26.67 40 28 25.41 40 43 20.71 40 37 58.69	+654.56 +756.31	+1.33	$ \begin{array}{rrrr}  - & 18 \\  + & 20 \\  - & 31 \\  + & 14 \\  + & 8 \end{array} $	$     \begin{array}{r}       -5 \\       +12 \\       +13 \\       -12 \\       -3     \end{array} $	6 5 7	22.00 22.96 22.92 23.40 23.58	61.2 60.4
Oct. 5	1 1 1 IV	1	13.9120 6.5083 ii 26.0523 19.7177 21.7903	23.5433 33.7637 <sup>1</sup> 13.6360 21.7777 20.2680	$ \begin{array}{r} -107 \\ + 7 \\ - 19 \\ + 13 \\ + 13 \end{array} $	$-1.2 \\ +1.1$		40 40 26.63 40 24 53.34 40 41 36.71 40 37 15.00 40 37 1.79	+1129.10 $-513.86$ $-52.11$	+1.29	$ \begin{array}{r rrrr}  & - & 24 \\  & - & 47 \\  & + & 34 \\  & - & 11 \\  & - & 37 \end{array} $	$     \begin{array}{r}       -7 \\       +20 \\       -10 \\       -2 \\       -1     \end{array} $	7 13	23.20 23.52 23.23 22.90 23.01	59.5 59.2 35.9
		3 1 5 3	10.1770 ii	13.2200 24.2823 10.7130 ii 28.9837 iv 12.4183 ii	+4	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c c} +1.6 \\ -2 \\ +.4 \\4 \\1 \end{array} $	40 29 39.74 40 38 45.29 40 29 27.39 40 28 26.16 40 30 16.77	$egin{array}{c} -222.87 \\ +653.66 \\ +755.49 \end{array}$	+ 3	$egin{pmatrix} + & 20 \\ - & 15 \\ + & 16 \\ + & 8 \\ - & 4 \end{bmatrix}$	$     \begin{array}{r}       +13 \\       -5 \\       +12 \\       +13 \\       +10     \end{array} $	10 6 5	22.98 22.35 22.74 23.24 22.75	55.8 55.6 55.2
2.4		1	12.0500 22.3637 24.2937 33.1350 iv 14.2133	28.5807 18.5620 14.6303 5.9400 ii 26.6460	+ 46 + 17 - 46 - 30 + 47	$\begin{vmatrix}9 \\ + .8 \\ .0 \end{vmatrix}$	$egin{bmatrix} -\ .6 \ -\ .2 \ +1.5 \ +\ .6 \ .0 \end{bmatrix}$	40 43 21.45 40 37 59.39 40 40 27.43 40 24 54.14 40 41 37.51	$\begin{bmatrix} -1 & 36.16 \\ -4 & 4.20 \\ +11 & 27.48 \end{bmatrix}$	$  \begin{array}{c} + & 6 \\ +1.29 \end{array}  $	$egin{bmatrix} -&31\ -&17\ +&32\ +&8\ +&18 \end{bmatrix}$	$     \begin{array}{r}       -12 \\       -3 \\       -7 \\       +20 \\       -10     \end{array} $	11 6 6	23.14 23.16 23.60 23.25 23.28	55.0 54.4 54.9
Oct. 6		1 D	19.2977 17.7310 12.5567 21.8577 12.5103	17.1927 19.2710 28.5027 16.2153 28.8947 iv	$ \begin{array}{c c} -32 \\ -20 \\ +72 \\ -48 \\ -23 \end{array} $	$ \begin{array}{c c} -1.5 \\ +1.7 \\3 \end{array} $	$ \begin{array}{c c} +2.4 \\ -1.1 \\ + .6 \\7 \\9 \end{array} $	40 37 15.15 40 37 1.96 40 29 39.94 40 38 45.49 40 29 27.61	$ \begin{array}{r}     - 38.88 \\     + 643.33 \\     - 222.53 \end{array} $	$\begin{vmatrix} + & 1 \\ - & 9 \\ + & 3 \end{vmatrix}$	$egin{bmatrix} + & 77 \\ - & 38 \\ + & 35 \\ - & 14 \\ + & 9 \end{bmatrix}$	$     \begin{array}{r}       -2 \\       -1 \\       +13 \\       -5 \\       +12     \end{array} $	11 7 10	22.90 22.81 23.73 22.90 23.41	53.8 53.8
		6 7 8 9	29.3140 iv 12.8693 ii 27.0770 17.9880 15.2120	10.5163 ii 27.2837 iv 10.4933 21.8317 24.9013	— 5 —176	$\begin{array}{c} +1.1 \\ +2.0 \\ + .6 \end{array}$	$\begin{array}{c c}2 \\ +1.1 \\ +.6 \end{array}$	40 28 26.39 40 30 17.01 40 43 21.70 40 37 59.62 40 40 27.69	$\begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$egin{pmatrix} +1.36 \\ +10 \\ +2 \end{pmatrix}$	+ 15	$ \begin{vmatrix} +13 \\ +10 \\ -12 \\ -3 \\ -7 \end{vmatrix} $	6 7 11	23.19 23.10 23.38 22.72 22.81	52.1 51.1
		2	6.5387 ii 25.5140 27.2237 22.3747 27.3663	33.7447 iv 13.0583 12.2463 17.8957 13.4797	$ \begin{array}{r} + 8 \\ - 77 \\ - 38 \\ + 7 \\ + 56 \end{array} $	6 7 -2.0 9 2	$egin{array}{c} + .5 \\ -2.2 \\ -1.9 \\4 \\2 \end{array}$	40 24 54.40 40 41 37.77 40 42 42.19 40 34 30.26 40 42 14.47	$ \begin{array}{r} -5 & 14.71 \\ -6 & 18.57 \\ +1 & 53.26 \end{array} $	$\begin{vmatrix} + & 7 \\ + & 9 \\ - & 3 \end{vmatrix}$	- 3 - 39 - 56 - 19 - 5	$+20 \\ -10 \\ -13 \\ + 4 \\ -10$	7   8   9	23.77 22.71 23.10 23.43 23.23	51.0 46.7
		4 5 6 7 8	18.6440 16.5987 23.8817 27.4460 22.8757	21.8163 25.2990 16.7483 11.6737 16.0973	$+71 \\ +26$	-1.6 + .3	$\begin{vmatrix} -1.8 \\ +1.0 \end{vmatrix}$	40 37 43.15 40 32 43.47 40 33 23.22 40 43 2.23 40 33 32.02	+340.14  +30.41  -638.61	$\begin{vmatrix} \dot{-} & 5 \\ - & 4 \\ + & 9 \end{vmatrix}$	+ 17	$     \begin{array}{r}         -3 \\         +7 \\         -12 \\         +5 \\     \end{array} $	6 7	23.16 23.71 23.22 23.83 23.34	47.0 46.7

1001	01	D		Wiene		c	Lev	els.	1/6 / 6/		Correct	ons.			Latitude.	Ther
1894.	Star.	P		Micrometer	•	U	$\boldsymbol{A}$	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Lanuage.	mom
Oct. 11		1 R	18.7- 21.2- 27.2- 17.6- 27.7-	057   19.6 $717   11.8$	8870 8507 8883 8550 8823 <sup>II</sup>	$ \begin{array}{c}  - & 5 \\  + & 4 \\  - & 93 \\  + & 29 \\  + & 15 \end{array} $	8 $4$	$+1.1 \\ -1.4 \\ -1.4 \\ +1.2 \\ +1.1$	40 37 15.68 40 37 2.56 40 29 40.66 40 38 46.21 40 29 28.46	<b>—</b> 2 23.54	+ 3	$ \begin{array}{r} + 53 \\ - 30 \\ - 24 \\ + 5 \\ + 14 \end{array} $	$-1 \\ +12$	11 7 10	0 36 23.55 23.05 23.12 22.80 22.95	51.4 51.3 50.0
		1 R 2 8 4 5	12.9 17.8 11.7 23.0 24.6	587   22.3 957   25.5 567   19.8	9597 2973 7570 3817 9717	$egin{pmatrix} + & 60 \\ + & 4 \\ -149 \\ + & 42 \\ + & 27 \end{matrix}$	$\begin{vmatrix} + .8 \\7 \\ + .8 \end{vmatrix}$	$egin{pmatrix} +1.4 \\ + .5 \\ + .9 \\ + .7 \\ + .7 \end{pmatrix}$	40 42 42.55 40 34 30.55 40 42 14.94 40 37 43.35 40 32 43.61	$ \begin{array}{r} + 152.23 \\ - 552.60 \\ - 120.38 \end{array} $	$\begin{vmatrix} - & 3 \\ + & 8 \end{vmatrix}$	$^{+}$ $^{+}$ $^{+}$ $^{+}$ $^{19}$ $^{-}$ $^{-}$ $^{0}$ $^{+}$ $^{22}$ $^{-}$ $^{9}$	$     \begin{array}{r}       -13 \\       +2 \\       -10 \\       -3 \\       +7     \end{array} $	9 6 7	23.60 23.05 22.38 23.25 23.32	43.5 44.6 44.8
Oct.		6 7 8 9	17.0 11.7 17.0 16.8 31.0	543   27.5 427   23.8	1790 5480 8280 8067 2710 <sup>ii</sup>	$egin{pmatrix} + & 39 \\ - & 50 \\ + & 25 \\ - & 29 \\ + & 2 \end{bmatrix}$	$  \begin{array}{c} + .4 \\ + .2 \end{array}  $	$ \begin{array}{r} -2.3 \\ + .8 \\8 \\ +1.2 \\ +1.6 \end{array} $	40 33 23.30 40 43 2.26 40 33 31.94 40 38 28.22 40 27 10.46	$egin{array}{ccccc} -6&39.17 \\ +&2&51.61 \\ -&2&5.44 \end{array}$	$\begin{vmatrix} + & 9 \\ - & 4 \\ + & 3 \end{vmatrix}$	$egin{array}{ccccc} -&53 \\ +&16 \\ -&7 \\ +&26 \\ +&32 \end{array}$	$egin{array}{c} +5 \ -12 \ +5 \ -4 \ +20 \ \end{array}$	7 6 7	23.77 23.29 23.55 23.10 23.26	44.4 43.4 44.2
15	IV	1 D 2 3 4 5	18.6 11.8	$egin{array}{c c} 217 & 20.1 \ 283 & 27.1 \ \end{array}$	8573 1937 7453 8783 9550 <sup>iv</sup>	$egin{pmatrix} 0 & 8 \ - & 30 \ - & 39 \ + & 7 \ \end{pmatrix}$	$\begin{vmatrix} -2.3 \\ + .4 \\ .0 \end{vmatrix}$	$egin{bmatrix} -1.3 \\ -2.0 \\ + .1 \\ .0 \\2 \\ \hline \end{array}$	40 37 16.10 40 37 3.03 40 29 41.21 40 38 46.76 40 29 29.09	+642.34 $-224.61$	$\begin{vmatrix} + & 1 \\ - & 9 \\ + & 3 \end{vmatrix}$	$egin{array}{cccc} -&23 \\ -&62 \\ +&7 \\ -&2 \end{array}$	$egin{array}{c} -2 \\ -1 \\ +12 \\ -5 \\ +12 \end{array}$	11 7 10	23.23 22.80 23.72 22.23 23.24	46.6
	1	6 7 9 0	$\begin{vmatrix} 13.4 \\ 16.8 \\ 15.0 \end{vmatrix}$		7573 <sup>iv</sup> 7623 7497	$\begin{bmatrix} -31 \\ -40 \\ -10 \end{bmatrix}$	$\begin{vmatrix} +1.0 \\1 \\ -2.1 \end{vmatrix}$	$egin{bmatrix} - & .6 \\ + & .5 \\ - & .4 \\ - & .4 \\ -1.0 \end{bmatrix}$	40 28 27.97 40 30 18.64 40 38 1.15 40 40 29.52 40 24 56.22	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{bmatrix} +1.36 \ + & 2 \ + & 6 \end{bmatrix}$	$\begin{array}{rrr} - & 27 \\ + & 22 \\ - & 6 \\ - & 39 \\ - & 15 \end{array}$	$\begin{vmatrix} +13 \\ +10 \\ -3 \\ -7 \\ +20 \end{vmatrix}$	6 11 6	23.25 23.09 22.88 23.08 23.53	45.8 45.4 45.4 45.5
Oct. 16	IV	2 1 2 3 4	25.3 18.3 19.6 28.2 17.1	093   20.4 683   18.6 763   12.4	7780 4517 0703 4290 8723	$ \begin{array}{r} -105 \\ -11 \\ -15 \\ +49 \\ 0 \end{array} $	$\left  { \begin{array}{c} +3.8 \\ + .2 \\ +1.8 \end{array}} \right $	$egin{array}{c} .0 \\ +3.3 \\4 \\ + .8 \\ +1.4 \end{array}$	40 41 39.61 40 37 16.24 40 37 3.18 40 29 41.37 40 38 46.92	$\begin{array}{ rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{vmatrix} + & 1 \\ + & 1 \\ - & 9 \end{vmatrix}$	$egin{pmatrix} + & 5 \\ +1.03 \\ - & 2 \\ + & 39 \\ + & 39 \end{pmatrix}$	<b>—</b> 1	13 11 7	22.57 23.25 22.91 22.64 21.96	45.1 53.3 53.1
		5 6 7 8	10.4		1777 iv	$\begin{bmatrix} - & 1 \\ - & 22 \\ + & 72 \end{bmatrix}$	+1.4	$\left  egin{array}{c} +2.4 \\ .0 \\ +2.1 \\ +2.6 \\ +1.4 \end{array} \right $	40 29 29.28 40 28 28.17 40 30 18.84 40 43 23.55 40 38 1.34	$\left  egin{matrix} + & 7 & 53.50 \\ + & 6 & 1.91 \\ - & 7 & 1.15 \end{matrix} \right $	$\begin{vmatrix} +1.33 \\ +1.36 \end{vmatrix}$	$egin{pmatrix} + & 54 \\ + & 22 \\ + & 46 \\ + & 65 \\ + & 54 \\ \end{matrix}$	$\begin{vmatrix} +12 \\ +13 \\ +10 \\ -12 \\ -3 \end{vmatrix}$	5 6 7	22.48 23.40 22.73 23.10 23.60	51.9 54.5
	1	0 1 2 2 2 3	13.6	823 iv 6.0 500 26. 697 17.	4447 0707 <sup>ii</sup> 1623 4440 7570	- 56 - 23 - 9 - 23 - 36	$\begin{array}{c c}4 \\ -1.6 \\0 \end{array}$	$\begin{vmatrix} + .8 \\6 \\8 \\1 \\ + .8 \end{vmatrix}$	40 40 29.74 40 24 56.44 40 41 39.83 40 34 30.58 40 42 14.95	$+11\ 25.39$ $-\ 5\ 16.32$ $+\ 1\ 51.83$	$\begin{vmatrix} +1.29 \\ + & 7 \\ - & 3 \end{vmatrix}$	$egin{pmatrix} + & 42 \\ - & 14 \\ - & 36 \\ - & 1 \\ + & 32 \end{bmatrix}$	$\frac{-10}{+4}$	6 7 9	22.81 23.24 23.19 22.50 23.57	54.4 54.4 51.1
		4 5 6 7 8	10.0	330   24. 603   17. 163   11.	8747 0327 1313 5537 9630	1-45	$\begin{array}{c} +1.5 \\ +.5 \\7 \\2 \\ -1.4 \end{array}$	_ 4	40 32 43.49 40 33 23.12 40 43 2.04	$\begin{array}{c} + \ 3\ 39.88 \\ + \ 3\ 0.35 \\ - \ 6\ 38.31 \end{array}$	$\begin{bmatrix} - & 5 \\ - & 4 \\ + & 9 \end{bmatrix}$	_ 1		$\begin{bmatrix} 7 \\ 6 \end{bmatrix}$	23.12 23.54 23.38 23.76 22.74	50.6 50.5 50.1
Oct. 17	1	9 0 1 2 3	19.3 18.2	300 ii 29. 540   17. 107   19.	0833 1480 iv 1227 8133 5067	- 34 18	$ \begin{array}{c} -2.1 \\ + .4 \\ +1.4 \\5 \\ +1.5 \end{array} $	2 + .7	40 27 10.04 40 37 16.38	- 53.80 $-$ 40.48	$\begin{vmatrix} + & 1 \\ + & 1 \end{vmatrix}$	+ 1	$^{+20}_{-2}$	9 13 11	23.21 23.24 22.90 22.97 22.86	50.4 55.4 55.3 53.4
		4 5 6 7 8	10.5 29.7 13.5	6430 <sup>ii</sup> 26. 7867 <sup>iv</sup> 11. 8403 <sup>ii</sup> 27.	1109 i	$\begin{bmatrix} 1 \\ y \end{bmatrix} - 25$	+ .2	$  + .5 \\ + .2 \\ + 3.8 \\ .0$	40 38 47.10 40 29 29.47 40 28 28.38 40 30 19.05 40 43 23.77	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{pmatrix} + & 3 \\ +1.35 \\ +1.33 \\ +1.36 \\ + & 10 \end{bmatrix}$	$\begin{vmatrix} & 0 \\ + & 5 \\ + & 87 \\ + & 11 \\ + & 12 \end{vmatrix}$	$ +12 \\ +13$	6 5 6	22.37 23.70 22.94 22.68 23.64	

	۵.		15.		Let	vels.			Correc	tions.				The
894.	Star.	P	Micrometer.		A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r	Mer	Latitude.	nioi
oct. 17	IV 9 10 11 I 1	R	17.2040 14.4263 6.3003 ii 33.4243 11.9907 18.5347 21.0947 24.1910 26.9923 23.0023	- 59 - 9 - 66	$8 \\ +1.1$	$+1.4 \\8$	40 38 1.54 40 40 29.97 40 24 56.67 40 42 42.66 40 34 30.59	$ \begin{array}{r} -4 & 6.72 \\ +11 & 25.73 \\ -6 & 19.11 \end{array} $	$ig _{+1.29}^{+6} \ +9$	$egin{bmatrix} + & 7 \ - & 54 \ - & 23 \ + & 1 \ - & 70 \end{bmatrix}$	$egin{array}{c} -3 \\ -7 \\ +20 \\ -13 \\ +4 \end{array}$	6 6 8	0 / 1/ 40 36 23.42 22.76 23.72 23.60 23.02	53. 52. 48.
	5 5 6		13.5210 27.4170 24.4190 21.2703 25.1053 16.3907 16.9923 24.1380 12.4377 28.1867	$\begin{array}{c c} + 80 \\ + 56 \\ + 37 \end{array}$	$\begin{array}{c} + .4 \\ -2.3 \\ -1.4 \end{array}$	$ \begin{array}{c c}4 \\ -1.6 \\ -1.8 \end{array} $	40 42 14.95 40 37 43.28 40 32 43.47 40 33 23.08 40 43 1.99	-119.81	$\begin{vmatrix} + & 2 \\ - & 5 \\ - & 4 \end{vmatrix}$	$ \begin{array}{rrrr}  & -28 \\  & + 1 \\  & -57 \\  & -45 \\  & -52 \end{array} $	$     \begin{array}{r}       -10 \\       -3 \\       +7 \\       +5 \\       -12     \end{array} $	77	23.24 23.54 23.46 23.45 23.23	48
ct. 18	10 IV 1	R	17.1107 18.9133 32.1443 <sup>1</sup> v 19.8810 21.1630 21.1630 21.9920 19.5920	$\begin{vmatrix} + & 60 \\ + & 18 \\ + & 17 \end{vmatrix}$	-2.1	_ 8	40 33 31.50 40 38 27.75 40 27 9.94 40 37 16.52 40 37 3.49	$-2\   4.25\ +\   9\ 11.24$	$+1.32 \\ +1$	$\begin{array}{ c c c c c } - & 64 \\ - & 39 \\ + & 5 \\ - & 10 \\ - & 67 \end{array}$	$ \begin{vmatrix} +5 \\ -4 \\ +20 \\ -2 \\ -1 \end{vmatrix} $	9 13	23.70 23.17 22.84 23.13 23.20	48. 48. 50.
	\$ 44 \$ 6	5	26.7913 10.8870 17.5680 23.3100 27.5030 <sup>iv</sup> 11.2120 10.6953 ii 29.4077 26.8287 <sup>iv</sup> 12.5067	$\begin{array}{c c} + & 22 \\ + & 23 \\ - & 1 \end{array}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$+1.2 \\ -1.1 \\ +1.2$	40 29 41.72 40 38 47.28 40 29 29.67 40 28 28.59 40 30 19.27	$ \begin{array}{r} -225.23 \\ +651.93 \\ +753.09 \end{array} $	$\left  { + \atop +1.35}\atop +1.33 \right $	$egin{bmatrix} -&55 \\ +&10 \\ -&41 \\ +&36 \\ -&27 \end{bmatrix}$	$     \begin{array}{r}       +12 \\       -5 \\       +12 \\       +13 \\       +10     \end{array} $	6 5	22.96 22.23 22.72 23.55 22.66	50 50
	10 10 11 12		10.4610 19.8950 24.3547 33.4680 <sup>1v</sup> 13.6657 26.2483	— 70 — 46	$egin{array}{c}4 \\ + .8 \\ +1.6 \\ -1.3 \\ +1.0 \\ \end{array}$	+ .3  + .2	40 40 30.22 40 24 56.91	$egin{array}{cccc} -& 1 & 39.29 \ -& 4 & 7.68 \ +& 11 & 25.41 \ \end{array}$	$egin{bmatrix} + & 2 \ + & 6 \ + 1.29 \end{bmatrix}$	$egin{pmatrix} + & 5 \\ + & 17 \\ + & 28 \\ - & 21 \\ + & 21 \end{bmatrix}$	$     \begin{array}{r}       -12 \\       -3 \\       -7 \\       +20 \\       -10     \end{array} $	7 11 6 6 7	23.24 22.73 22.87 23.66 22.45	49 49
	I 1 2 2 4 4 5	8	26.6807 11.6723 21.8540 17.4067 27.0443 13.1403 17.9960 21.1720 15.6197 24.3363	$-15 \\ + 11$	$ \begin{vmatrix} -1.9 \\2 \\ -1.1 \\6 \\ +.1 \end{vmatrix} $	$\begin{bmatrix} - & .6 \\ - & .8 \end{bmatrix}$	40 42 42.73 40 34 30.61 40 42 14.97 40 37 43.29 40 32 43.45	-551.55 $-120.27$	$\begin{vmatrix} + & 8 \\ + & 2 \end{vmatrix}$	$\begin{array}{r rrrr} - & 41 \\ - & 10 \\ - & 28 \\ - & 19 \\ - & 2 \end{array}$	$     \begin{array}{r}       -13 \\       +4 \\       -10 \\       -3 \\       +7     \end{array} $	8 9 6 7 7	23.19 23.01 23.18 22.89 23.89	42
	6 7 8 9 10	3	23.8380 16.6900 27.2640 11.4847 23.5877 16.7897 22.9700 18.0207 9.3767 ii 31.2183	$ \begin{array}{c c}  & 90 \\  + & 11 \\  + & 22 \end{array} $	$\begin{bmatrix}9 \\ +1.3 \end{bmatrix}$	$egin{array}{c}3 \5 \ + 1.4 \end{array}$	40 33 23.06 40 43 1.96 40 33 31.43 40 38 27.67 40 27 9.86	$egin{array}{c} -6 & 38.71 \\ +2 & 51.90 \\ -2 & 5.19 \end{array}$	$egin{bmatrix} + & 9 \ - & 4 \ + & 3 \end{bmatrix}$	$egin{bmatrix} -&31\ +&9\ -&21\ +&38\ +&15 \end{bmatrix}$	$^{+\ 5}_{-12} \\ ^{+\ 5}_{-\ 4} \\ ^{+\ 20}$	6 7	28.58 23.38 23.19 22.92 23.83	43 43
et. 19	IV 1		19.8913 17.7620 19.0630 20.6893 11.7173 27.6123 21.8233 16.0950 10.5080 26.7997	$ \begin{array}{c c} - & 1 \\ - & 46 \\ - & 53 \end{array} $	$egin{array}{c} + .3 \ -1.0 \ -1.1 \end{array}$	$egin{array}{c} + .9 \\ -1.7 \\7 \end{array}$	40 37 16.66 40 37 3.63 40 29 41.89 40 38 47.45 40 29 29.86	+641.75 $-224.69$	$\begin{vmatrix} \dot{+} & 1 \\ - & 9 \\ + & 3 \end{vmatrix}$	+ 19 + 16 - 37 - 27 - 14	$     \begin{array}{r}       -2 \\       -1 \\       +12 \\       -5 \\       +12     \end{array} $	7 10	23.19 22.79 23.37 22.57 23.25	54 53
	6 7 8 9 10	3	29.4677 <sup>1v</sup> 10.7460 13.0933 ii 27.4057 26.9190 10.2547 18.2210 22.1420 15.2093 24.9830	iv — 12 —206	+1.7	+ .7	40 28 28.79 40 30 19.48 40 43 24.21 40 38 1.96 40 40 30.46	+61.82	+1.36	$egin{array}{cccccccccccccccccccccccccccccccccccc$	-12	6 7	22.88 23.28 23.89 22.98 23.41	53 52
	11 12 I 1 2	D	6.0197 ii 33.1290 24.8200 12.2390 13.6887 28.6860 18.3917 22.8293 12.5917 26.5497	$     \begin{array}{r}       -163 \\       +155 \\       +23    \end{array} $	$ \begin{array}{c} -1.2 \\3 \\2 \\ -2.4 \\ +1.6 \end{array} $	1 8	40 41 40.54 40 42 42.79	$ \begin{array}{r} -517.66 \\ -619.56 \\ +152.25 \end{array} $	$\begin{vmatrix} + & 7 \\ + & 9 \\ - & 3 \end{vmatrix}$	$egin{array}{ccccc} -&36 \\ -&8 \\ -&25 \\ -&39 \\ +&55 \end{array}$	$^{+20}_{-10}_{-13}_{+4}_{-10}$	8	23.64 22.84 23.02 22.61 22.84	51 47
	5 6 7 8		22.4857 19.3277 24.4410 15.7737 17.0693 24.2067 12.4567 28.2480 17.0087 23.8250		$egin{pmatrix} +1.1 \\ -2.2 \\ 0.0 \\ +.6 \\ +.5 \end{bmatrix}$	$egin{bmatrix}3 \\ +1.9 \\2 \\ +.7 \\ +.5 \end{bmatrix}$	40 37 43.31 40 32 43.46 40 33 23.06 40 43 1.94 40 33 31.38	+339.15 +30.55 -639.36	$\begin{array}{c c} - & 4 \\ + & 9 \end{array}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$     \begin{array}{r}       -3 \\       +7 \\       +5 \\       -12 \\       +5 \end{array} $	7	23.60 22.91 23.65 22.80 23.99	46.

1001		_				Let	vels.			Correc	tions.				Ther-
1894.	Star.	P	Micro	meter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom.
Oct. 19 Oct. 20	10	R	32.2237 iv 18.4223 21.4203	23.4253 10.3930 ii 20.5670 19.8217 11.9123	+ 19	$ \begin{array}{r}1 \\2 \\ +3.0 \\ -1.4 \\ +.3 \end{array} $	$egin{array}{c} + .7 \\ + .1 \\ + 2.8 \\ -1.9 \\ + 2.2 \\ \hline \end{array}$	0 38 27.61 40 38 27.61 40 27 9.79 40 37 16.78 40 37 3.76 40 29 42.01	$ \begin{array}{r} + 911.98 \\ - 54.20 \\ - 40.44 \end{array} $	$egin{pmatrix} + & 3 \\ +1.32 \\ + & 1 \\ + & 1 \\ - & 9 \end{bmatrix}$	$egin{pmatrix} + & 2 \\ - & 1 \\ + & 84 \\ - & 46 \\ + & 32 \end{bmatrix}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	9 13	40 36 22.55 23.37 23.54 22.97 22.97	46.5 56.6 57.2
	4 5 6 7 8		27.5390 iv 10.7277 ii 26.7537 iv	29.4270iv	_ 1	$egin{array}{c} +1.3 \ + .9 \ -1.8 \end{array}$	$egin{array}{c} +2.4 \\ +2.2 \\1 \\ -1.6 \\ +.2 \end{array}$	40 38 47.61 40 29 30.04 40 28 28.99 40 30 19.68 40 43 24.41	$^{+650.89}_{+752.76}_{+62.23}$	$egin{array}{c} + & 3 \ +1.35 \ +1.33 \ +1.36 \ + & 10 \end{array}$	$egin{pmatrix} + & 65 \\ + & 48 \\ + & 11 \\ - & 49 \\ + & 1 \end{bmatrix}$	$     \begin{array}{r}       -5 \\       +12 \\       +13 \\       +10 \\       -12     \end{array} $	10 6 5 6 7	22.48 22.94 23.37 22.94 22.70	56.6 56.1
Oct. 27	9 10 11 12 IV 1		23.8960 33.5497 iv 12.7207	15.8630 14.0927 6.4677 <sup>11</sup> 25.2953 18.6567	0	$^{+.4}_{-1.5}$ $^{-1.6}$	$egin{array}{c} -1.9 \\ -2.2 \\ -1.2 \\ -1.3 \\ +.9 \\ \end{array}$	40 38 2.16 40 40 30.68 40 24 57.38 40 41 40.78 40 37 17.20	$egin{array}{cccc} -4 & 7.63 \ +11 & 24.70 \ - & 5 & 17.64 \end{array}$	$egin{pmatrix} + & 2 \\ + & 6 \\ +1.29 \\ + & 7 \\ + & 1 \end{bmatrix}$	$ \begin{array}{rrr}  & - & 27 \\  & + & 4 \\  & - & 39 \\  & - & 42 \\  & + & 40 \end{array} $	$     \begin{array}{r}       -3 \\       -7 \\       +20 \\       -10 \\       -2     \end{array} $	$\begin{bmatrix} 6 \\ 6 \\ 7 \end{bmatrix}$	23.21 23.14 23.24 22.76 23.21	55.3 55.6 52.8
	2 3 4 5 6		12.0243		$ \begin{array}{cccc}  & 10 \\  & 8 \\  & 96 \\  & 3 \\  & 2 \end{array} $		$egin{array}{c} .0 \\ +1.4 \\2 \\ .0 \\ -2.7 \end{array}$	40 37 4.27 40 29 42.68 40 38 48.29 40 29 30.85 40 28 29.90	$egin{array}{c} + & 6 & 40.39 \\ - & 2 & 25.93 \\ + & 6 & 50.77 \end{array}$	$egin{pmatrix} +&1\ -&9\ +&3\ +1.35\ +1.33 \end{bmatrix}$	$ \begin{array}{rrrr}  & - & 22 \\  & + & 35 \\  & + & 4 \\  & & 0 \\  & - & 92 \end{array} $	$     \begin{array}{r}       -1 \\       +12 \\       -5 \\       +12 \\       +13     \end{array} $	7	22.80 23.52 22.48 23.15 22.96	52.8 51.8
	8 9 10 11 12		17.4873 14.9583 6.0717 ii	11.6147 21.4603 24.7967 33.1213 iv 14.1640	-19 $-8$ $-25$	$ \begin{array}{r} -1.5 \\ + .7 \\ -1.1 \\ + .2 \\ +1.0 \end{array} $	$egin{pmatrix} + & .6 \\ + & .7 \\ - & .6 \\ - & .4 \\ .0 \end{bmatrix}$	40 43 25.41 40 38 3.13 40 40 31.86 40 24 58.57 40 41 42.00	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$egin{pmatrix} +&10\ +&2\ +&6\ +1.29\ +&7 \end{bmatrix}$	$egin{array}{ccccc} -&16 \ +&20 \ -&25 \ -&2 \ +&16 \ \end{array}$	$     \begin{array}{r}       -12 \\       -3 \\       -7 \\       +20 \\       -10     \end{array} $	7 11 6 6 7	23.80 23.03 22.94 23.91 23.05	51.0 51.1
	I 1 2 3 4 5		21.7590 26.8663 17.8587	11.7193 17.3460 12.9467 21.0327 23.5267	— 18 — 10	$+ .8 \\ -1.6$	-1.7 1 8 -1.5 -1.7	40 42 43.38 40 34 31.13 40 42 15.47 40 37 43.66 40 32 43.71	+ 151.53 $- 551.89$ $- 120.21$	$ \begin{array}{cccc} + & 9 \\ - & 3 \\ + & 8 \\ + & 2 \\ - & 5 \end{array} $	$ \begin{array}{rrrr}  & 49 \\  & 16 \\  & 3 \\  & 45 \\  & 31 \end{array} $	$-13 \\ + 4 \\ -10 \\ - 3 \\ + 7$	8 9 6 7 7	22.95 22.60 23.65 23.06 23.51	46.5 47.4 47.4
0.4	6 7 8 9 10		27.1893 24 0040	16.5017 11.4120 17.1900 17.5960 30.7880 iv	$egin{pmatrix} + & 3 \\ - & 99 \\ - & 25 \\ + & 2 \\ - & 1 \end{bmatrix}$	-1.6 6	$ \begin{array}{c c} +1.7 \\ .0 \\6 \\ -1.0 \\ .0 \end{array} $	40 33 23.22 40 43 2.02 40 33 31.26 40 38 27.41 40 27 9.51	$ \begin{array}{r} -639.64 \\ +252.36 \\ -24.40 \end{array} $	$\begin{array}{cccc} + & 9 \\ - & 4 \\ + & 3 \end{array}$	$egin{bmatrix} + & 1 \ - & 33 \ - & 22 \end{bmatrix}$	$^{+\ 5}_{-12} \ ^{+\ 5}_{-\ 4} \ ^{+\ 20}$	6 7 6 7 9	23.52 23.43 23.36 22.85 23.53	47.3 47.5
Oct. 31	I 1 2 3 4 I 5		18.1217 13.4477 23.2383	27.1953 22.5790 27.3847 20.0747 15.6510	$^{+}$ 14 $^{+}$ 51 $^{+}$ 46	$egin{pmatrix} + .4 \\ -3.4 \\3 \\3 \\ -2.1 \\ \hline \end{pmatrix}$	$ \begin{array}{c c} -1.9 \\ -2.7 \\2 \\ .0 \\ -1.1 \end{array} $	40 42 43.50 40 34 31.16 40 42 15.53 40 37 43.66 40 32 43.66	$   \begin{array}{r}     + 152.73 \\     - 552.49 \\     - 120.10   \end{array} $	$\begin{vmatrix} - & 3 \\ + & 8 \end{vmatrix}$	- 17 - 89 - 7 - 5 - 48	$-13 \\ + 4 \\ -10 \\ - 3 \\ + 7$	8 9 6 7 7	23.43 23.10 23.01 23.57 23.54	44.4 43.8
<b>N</b>	6 7 8 9 10		12.6243 16.5780	23.4040 23.3003	+ 35	$ \begin{array}{c c} .0 \\ -1.1 \\3 \\ +1.1 \\ -1.9 \end{array} $	$\left  { \begin{array}{c} + \ .2 \\ + \ .5 \\ + 2.9 \end{array}} \right $	40 33 23.13 40 43 1.88 40 33 31.02 40 38 27.14 40 27 9.20	$egin{array}{l} -6&38.21 \\ +&2&52.58 \\ -&2&5.29 \end{array}$	$egin{bmatrix} + & 9 \\ - & 4 \\ + & 3 \end{bmatrix}$	$egin{pmatrix} - & 15 \ + & 1 \ + & 54 \ \end{pmatrix}$	$     \begin{array}{r}       +5 \\       -12 \\       +5 \\       -4 \\       +20     \end{array} $	6 7 6 7 9	23.08 23.56 23.68 22.45 22.98	44.4 44.0 44.3
Nov 1	IV 1 2 3 4 5		20.3817	21,2077 18,7350 13,4530 22,9390 12,1013 <sup>ii</sup>	$^{-6}_{+184}$	$egin{array}{c} + .5 \ -2.3 \ + .8 \ +2.8 \ +1.2 \ \end{array}$	$egin{array}{c} +1.4 \\ -2.6 \\ +2.2 \\ +2.2 \\ +1.4 \\ \end{array}$	40 37 4.73 40 29 43.22 40 38 48.86	$ \begin{array}{r}  - & 41.62 \\  + & 639.36 \\  - & 227.11 \end{array} $	$\begin{vmatrix} + & 1 \\ - & 9 \\ + & 3 \end{vmatrix}$	$egin{pmatrix} + & 26 \\ - & 70 \\ + & 40 \\ + & 77 \\ + & 37 \end{bmatrix}$	$     \begin{array}{r}       -2 \\       -1 \\       +12 \\       -5 \\       +12     \end{array} $	11 7 10	22.91 22.52 23.08 22.60 22.86	54.7 53.8
	6 7 8 9 10		22.4807		$ +16 \\  +106 \\  +18$	$ \begin{array}{c c}4 \\ -3.3 \\ -1.3 \\2 \\4 \end{array} $	+ .2 8	40 28 30.60 40 30 21.38 40 43 26.17 40 38 3.88 40 40 32.72	$\begin{bmatrix} - & 72.64 \\ - & 1 & 40.76 \end{bmatrix}$	$\begin{array}{c c} + & 10 \\ + & 2 \end{array}$	- 19 - 68 - 18 - 13 - 11	$^{+13}_{+10}_{-12}_{-3}_{-7}$	6 7 11	23.25 22.96 23.40 23.09 23.36	52.4 50.0

7001	Gr.				~	Lev	els.	1/6 : 50		Correcti	ions.			Latitude.	Ther
1894.	Star.	P	Micro	meter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latituae.	mom
Nov 1	IV11 12 I 1 2 3		33.6240 <sup>1v</sup> 13.7977 26.4270 22.5570 27.8083	6.6430 to 26.4350 11.3890 18.1473 13.8803	— 14 —144 — 14	-1.6 $5$	$egin{array}{c} + .6 \\ -1.8 \\1 \\ + .4 \\ + .3 \end{array}$	0 / // 40 24 59.44 40 41 42.89 40 42 43.56 40 34 31.23 40 42 15.57	-519.54 $-619.83$	$egin{pmatrix} + & 7 \\ + & 9 \\ - & 3 \end{bmatrix}$	$egin{pmatrix} 0 \\ -48 \\ -9 \\ +3 \\ +41 \end{bmatrix}$	$egin{array}{c} +20 \ -10 \ -13 \ +4 \ -10 \ \end{array}$	8	0 / // 40 36 23.15 22.91 23.68 22.88 23.63	49.6
	4 5 6 7 8		18.7597 16 1647 23.4480 27.1667 23.6860	21.9597 24.8447 16.3163 11.3977 16.8810	$ \begin{vmatrix} + & 11 \\ + & 38 \\ - & 8 \\ -101 \\ + & 18 \end{vmatrix} $	$\begin{vmatrix} +1.8 \\ -1.2 \\ + .6 \end{vmatrix}$	$ \begin{array}{r} +2.0 \\ +1.9 \\ -2 \\ +.4 \\ +1.5 \end{array} $	40 37 43.68 40 32 43.63 40 33 23.13 40 43 1.87 40 33 30.98	$\left  egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{bmatrix} - & 5 \\ - & 4 \\ + & 9 \end{bmatrix}$	$egin{pmatrix} + & 58 \\ + & 53 \\ - & 22 \\ + & 14 \\ + & 27 \end{bmatrix}$	$     \begin{array}{r}         -3 \\         +7 \\         +5 \\         -12 \\         +5      \end{array} $	7	23.39 23.80 23.27 23.63 23.41	,44. 43.
Nov 2	10 IV 1 2 3		22.2313 9.3563 ii 20.7663 18.9853 11.6980	17.3107 31.2167 iv 18.5827 20.6827 27.5053	- 11 + 8 - 6 - 1	$\begin{array}{c}2 \\ .0 \\ +1.2 \end{array}$	$egin{bmatrix}2 \\5 \\ + .7 \\ + 2.2 \\ .0 \end{bmatrix}$	40 27 9.14 40 37 17.68	$ \begin{array}{r} +912.69 \\ -55.19 \\ -42.91 \end{array} $	$egin{pmatrix} +1.32 \ + & 1 \ + & 1 \end{pmatrix}$	$egin{bmatrix} -&5 \ -&9 \ +&9 \ +&47 \ +&6 \end{bmatrix}$	_ 2	9 13 11	22.73 23.35 22.70 22.48 22.97	43. 56. 56.
Nov 3	4 5 6 7 I 1	R	22.5277 11.0477 ii 29.4847 iv 12.3027 ii 13.7553	16.7140 27.2483 <sup>tv</sup> 10 8627 <sup>ii</sup> 36.5163 <sup>tv</sup> 28.7800	$     \begin{array}{r}         -21 \\         +49 \\         -21 \\         +39 \\         +176 \\     \end{array} $	$\begin{vmatrix} + .2 \\ -1.5 \\ +1.9 \end{vmatrix}$	$egin{bmatrix} + .1 \\1 \\ + .3 \\1 \\6 \end{bmatrix}$	40 29 31.60 40 28 30.73	$ \begin{array}{r} + 649.69 \\ + 750.80 \\ + 559.43 \end{array} $	$\left  egin{array}{c} +1.35 \\ +1.33 \\ +1.36 \end{array} \right $	$egin{bmatrix} + & 29 \\ + & 1 \\ - & 20 \\ + & 29 \\ - & 4 \end{bmatrix}$	$^{+12}_{+13}$	5 6	22.40 22.83 22.84 22.75 23.43	56 55 54 46
	2 3 4 5 6		17.2840 13.3600 22.5883 24.5887 15.7460	21.7120 27.3223 19.4120 15.9013 23.8783	- 20 + 49 + 28 + 19 - 18	$\begin{vmatrix} +1.0 \\ -1.0 \\ -1.0 \end{vmatrix}$	$egin{bmatrix}4 \\ +1.7 \\ + .1 \\1 \\ -1.0 \end{bmatrix}$	40 42 15.71	$ \begin{array}{r} -553.11 \\ -120.37 \\ +339.69 \end{array} $	$\begin{vmatrix} + & 8 \\ + & 2 \\ - & 5 \end{vmatrix}$	$ \begin{array}{rrrr}  & - & 19 \\  & + & 37 \\  & - & 5 \\  & - & 17 \\  & - & 25 \end{array} $	$egin{pmatrix} + & 4 & -10 & -3 & +7 & +5 & 5 & +5 & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 1$	$\begin{bmatrix} 6 \\ 7 \\ 7 \end{bmatrix}$	23.18 23.01 23.43 23.35 23.30	46
Nov 4	7 8 9 10 IV 1			27.8020 24.0753 22.5763 10.7517 i 22.6463	$ \begin{vmatrix} -10 \\ +40 \\ +7 \\ +20 \\ +20 \\ \end{vmatrix} $	$\begin{vmatrix} .0 \\ -1.0 \\ + .6 \end{vmatrix}$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{r} + 252.51 \\ - 23.87 \\ + 912.14 \end{array} $	$\begin{vmatrix} - & 4 \\ + & 3 \\ +1.32 \end{vmatrix}$	$egin{bmatrix} -&19\ -&11\ -&30\ +&29\ +&15 \end{bmatrix}$	$^{+}_{-4}^{5}_{+20}$	$\begin{bmatrix} 6 \\ 7 \\ 9 \end{bmatrix}$	23.76 23.42 22.95 23.12 23.44	46 46 46
	2 3 4 5 6			19.7500 10.9213 22.2503 11.8433 i 29.5777 i		$\begin{bmatrix} 1 & - & .2 \\ 5 & - & .3 \\ - & .4 \end{bmatrix}$	$+ .3 \\1$	40 38 49.12 40 29 31.79	$egin{array}{c} + & 6 & 39.26 \\ - & 2 & 27.04 \\ + & 6 & 49.90 \end{array}$	$ \begin{array}{c c} -9 \\ +3 \\ +1.30 \end{array} $	$egin{bmatrix} -&29 \\ +&1 \\ -&6 \\ -&9 \\ +&52 \end{bmatrix}$	$+12 \\ -5 \\ +12$	10	23.17 22.82 22.10 23.08 23.32	48
	7 8 9 10 11		12.2130 21.4627 24.7540	$13.8593^{\mathrm{j}}\ 28.9467\ 17.4790\ 14.8657\ 6.6647^{\mathrm{i}}$	+ 84 - 19 - 10	$\begin{vmatrix} -0.5 \\ +0.3 \\ +0.9 \end{vmatrix}$	$\begin{vmatrix} +1.0 \\ -1.2 \\ + .4 \end{vmatrix}$	40 43 26.58 40 38 4.29 40 40 33.20	$ \begin{array}{ccccc}  & 7 & 3.28 \\  & 1 & 40.67 \\  & 4 & 9.96 \end{array} $	$egin{bmatrix} + & 10 \\ + & 2 \\ + & 6 \end{bmatrix}$	$egin{bmatrix} -&23\ +&4\ -&10\ +&19\ -&30 \end{bmatrix}$	$     \begin{bmatrix}       -13 \\       -4 \\       -7     \end{bmatrix}   $	7 11 6	23.02 23.38 23.61 23.48 23.44	46
Nov 6	I 12 I 1 2 3 4	D	14.3747 27.2397 21.7817 27.7473 17.6000	27.0507 12.1557 17.3487 13.8110 20.8080	$ \begin{vmatrix} -46 \\ -17 \\ +95 \end{vmatrix} $	$ \begin{array}{c c} 4 \\  + .3 \\  -3.0 \\ 6 \\  -1.6 \end{array} $	$\begin{vmatrix} + .3 \\ -1.3 \\ -1.7 \end{vmatrix}$	40 42 44.05 40 34 31.65 40 42 15.98	$ \begin{array}{r} -621.24 \\ +152.03 \\ -552.58 \end{array} $	$\begin{vmatrix} + & 9 \\ - & 3 \\ + & 8 \end{vmatrix}$	$\begin{array}{r r} - & 21 \\ + & 9 \\ - & 65 \\ - & 31 \\ - & 28 \end{array}$	$     \begin{array}{r}       -13 \\       +4 \\       -10     \end{array} $	8 9 6	22.56 22.94 23.13 23.13 22.76	38
Nov 10	5 6 I 1 2 3	R	15.0730 23.6417 13.0773 18.3190 13.6187	23.7437 16.5170 28.1760 22.7087 27.5907	- 44  + 84  + 15  + 74	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{c} +1.4 \\ -1.7 \\ +2.7 \\ +1.0 \\ .0 \\ \end{array}$	40 42 44.32 40 34 31.87	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{bmatrix} - & 4 \\ + & 9 \\ - & 3 \end{bmatrix}$	$\begin{vmatrix} - & 14 \\ + & 81 \\ + & 35 \end{vmatrix}$	$ \begin{vmatrix} +5 \\ -13 \\ +4 \end{vmatrix} $	6 8 9	23.59 23.44 23.23 23.35 22.96	38
	4 5 6 7 8		21.5343 25.0777 15.3047 27.8480 23.3020	18.3627 16.4047 22.4057 12.0893 16.5067	- 55 - 7	$\begin{bmatrix} -1.4 \\ -3.2 \\ +1.7 \end{bmatrix}$	$ \begin{array}{c c} -2.1 \\ -1.1 \\ +2.4 \\4 \end{array} $	40 32 44.09 40 33 23.48 40 43 2.12	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} - & 5 \\ - & 4 \\ + & 9 \end{vmatrix}$	$\begin{vmatrix} - & 65 \\ + & 57 \\ - & 6 \end{vmatrix}$	+ 7 + 5	6 7	23.57 22.94 23.47 23.69 22.87	38

	, l					Let	els.			Correc	tions.			7.44.	The
894.	Star.	P	Microme	ter.	$\boldsymbol{c}$	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mon
lov 10 lov 11	10		$\begin{array}{c} 9.2200 \ ^{ii} \ 31 \\ 21.2637 \ 15.9110 \ 17 \end{array}$	0860 iv 0.1007 7.5543	$^{+}_{-}$ $^{7}_{43}$	$-\begin{array}{l} .0 \\ -0.2 \\ +0.1 \\ -2.7 \\ +0.5 \end{array}$	$\begin{array}{c} + .2 \\ -1.2 \\1 \\ -2.4 \\8 \end{array}$	40 38 27.06 40 27 9.00 40 37 17.77 40 37 4.98 40 29 43.60	$ \begin{array}{r} + 912.83 \\ - 54.70 \\ - 41.44 \end{array} $	$egin{pmatrix} +1.27 \ + & 1 \ + & 1 \end{pmatrix}$	$ \begin{array}{c c} + & 2 \\ - & 18 \\ 0 \\ - & 73 \\ - & 2 \end{array} $	$ \begin{array}{r}  -4 \\  +20 \\  -2 \\  -1 \\  +12 \end{array} $	9 13 11	40 36 23.06 23.21 23.19 22.92 23.28	33-6 35.8 35.1
	4 5 6 7 8		12.5017 <sup>ii</sup> 28 29.7333 <sup>iv</sup> 11 13.6917 <sup>ii</sup> 27	.1130 <sup>ii</sup> 7.9223 <sup>iv</sup> -	$-\   {}^{20}_{-\   4}$	-1.2 $7$ $-2.2$ $-1.1$ $6$	8 $-1.3$ $8$ $-1.4$ $-1.5$	40 38 49.36 40 29 32.10 40 28 31.36 40 30 22.21 40 43 27.10	$\left(egin{array}{c} +\ 6\ 49.85 \\ +\ 7\ 50.75 \\ +\ 5\ 59.68 \end{array} ight)$	+1.21  +1.24	- 29 - 28 - 45 - 35 - 28	$     \begin{array}{r}       -5 \\       +12 \\       +13 \\       +10 \\       -13     \end{array} $	6 5	22.89 23.08 23.05 22.94 23.56	35. 34.
	9 10 11 12 I 1		$\begin{vmatrix} 15.4727 \\ 6.9240 \\ 25.7833 \end{vmatrix} \begin{vmatrix} 25 \\ 33 \\ 13 \end{vmatrix}$	1.5833 5.3803 3.8763 iv 3.0737 -2.0007	$^{+}_{+}$ $^{37}_{24}$	$\begin{vmatrix} + .2 \\7 \end{vmatrix}$		40 38 4.86 40 40 33.90 40 25 0.68 40 41 44.19 40 42 44.35	$ \begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$egin{bmatrix} + & 6 \ +1.17 \ + & 7 \end{bmatrix}$	$ \begin{array}{rrrr}  - & 48 \\  - & 3 \\  - & 14 \\  - & 28 \\  + & 10 \end{array} $	$ \begin{array}{r} -4 \\ -7 \\ +20 \\ -10 \\ -13 \end{array} $	6	23.03 23.34 23.45 22.78 23.58	34. 34. 30.
	2 3 4 5 6		28.4080 14 18.2120 21 15.2613 28	1.4083  - 3 9523  -	$^{+176}_{-\ 6}_{-\ 29}$	$ \begin{array}{c} -2.2 \\ + .6 \\ + .3 \\ +1.5 \\ + .9 \end{array} $	$ \begin{array}{c c}5 \\3 \\ +.1 \\1 \\ +1.4 \end{array} $	40 34 31.89 40 42 16.24 40 37 44 22 40 32 44.09 40 33 23.48	$ \begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{vmatrix} + & 8 \\ + & 2 \\ - & 5 \end{vmatrix}$	$egin{bmatrix} -&42\ +&5\ +&6\ +&22\ +&3 \end{bmatrix}$	— 3	9 6 7 7 6	23.12 23.52 23.55 24.06 23.40	30.
ov 12	7 8 9 10 IV 1		$\begin{vmatrix} 16.8030 \\ 18.7017 \\ 31.4850^{iv} \end{vmatrix} = 28$	3.5843 9.6107 ii	$     \begin{array}{r}       -109 \\       +15 \\       +50 \\       +7 \\       +21     \end{array} $	$-1.8 \\ -1.7$	$ \begin{array}{r r} -2.2 \\8 \\9 \\ -1.4 \\2 \end{array} $	40 43 2.11 40 33 30.99 40 38 27.01 40 27 8.95 40 37 17.81	$\begin{array}{c} + 252.80 \\ - 2 3.57 \\ + 913.05 \end{array}$	$\begin{vmatrix} - & 4 \\ + & 3 \\ +1.20 \end{vmatrix}$		$     \begin{array}{r}       -12 \\       +5 \\       -4 \\       +20 \\       -2     \end{array} $	6 7 9	23.49 23.66 23.10 23.04 23.16	30 30 30 31
	2 3 4 5 6		27.2703 11	1.4680 3.8267 3.8287 ii	$-88 \\ +47 \\ -13$	-1.1	$ \begin{array}{r} +1.8 \\ + .4 \\ +1.4 \\ .0 \\ +1.1 \end{array} $	40 38 49.42 40 29 32.17	$ \begin{array}{r} + 639.30 \\ - 226.97 \\ + 649.45 \end{array} $	$\begin{vmatrix} - & 9 \\ + & 3 \\ +1.23 \end{vmatrix}$	$egin{pmatrix} + & 43 \\ - & 16 \\ & 0 \\ + & 18 \\ + & 48 \end{bmatrix}$	$+12 \\ -5$	7 10 6	22.99 22.89 22.53 23.21 23.98	31 31 30
	7 8 9 10 11		20.8023 16 24.8117 14	9.4057	$^{+149}_{-44}$ $^{-12}$	$\begin{vmatrix} + .2 \\ +2.0 \\ .0 \end{vmatrix}$	$egin{pmatrix} + .7 \\ +1.2 \\ + .1 \\2 \\1 \end{pmatrix}$	40 38 4.96 40 40 34.02	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{vmatrix} + & 10 \\ + & 2 \\ + & 6 \end{vmatrix}$	$egin{bmatrix} + & 17 \\ + & 18 \\ + & 34 \\ - & 2 \\ - & 17 \end{bmatrix}$	-13 - 4 - 7	7 11 6	22.74 23.49 23.72 23.81 22.80	30
ov 15	12 IV 1 2 3 4	D	20.8310 18 20.7923 23 11.2847 27	8.6543 1.4750 7.0710	-114	$egin{array}{c} + .3 \\ +1.7 \\ +2.7 \\ + .3 \end{array}$	$egin{pmatrix} + .1 \\ + .3 \\ +1.7 \\ +1.6 \\1 \end{pmatrix}$	40 37 5.16 40 29 43.83 40 38 49.64	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{vmatrix} + & 1 \\ - & 5 \\ + & 2 \end{vmatrix}$	$\begin{array}{c c} + & 63 \\ + & 3 \end{array}$	$-1 \\ +12$	13 11 7	23.06 23.12 23.20 23.43 22.53	48 48 42
	5 6 7 8 9		28.4897 1	1.0147 <sup>ii</sup> 7.8397 <sup>iv</sup> 1.6977	$-40 \\ + 13$	$egin{pmatrix} + .1 \\5 \\ +2.0 \\ +1.5 \\ + .5 \end{bmatrix}$	$egin{bmatrix} -1.0 \\ + .3 \\ +1.6 \\ + .8 \\ + .5 \end{smallmatrix}$	40 39 22.41 40 28 31.72 40 30 22.60 40 43 27.53 40 38 5.32	$\begin{array}{r} + 6 \ 49.17 \\ + 7 \ 49.71 \\ + 5 \ 58.39 \\ - 7 \ 4.56 \\ - 1 \ 42.58 \end{array}$	$egin{array}{c} +1.27 \\ +1.26 \\ +1.27 \\ +& 5 \\ +& 1 \end{array}$	+ 34	$\begin{vmatrix} +13 \\ +10 \\ -13 \end{vmatrix}$	5 6 7	22.92 22.83 22.94 23.30 22.96	44
	10 11 12 I 1 2	R	13.1490 28	5.8987 8.2387	+ 20 + 93	$egin{pmatrix} + .4 \\6 \\ + .5 \\ + 2.0 \\2 \end{bmatrix}$	+ .5  +1.7	40 41 44.76	$ \begin{array}{r} +11 & 20.82 \\ -5 & 22.20 \\ -6 & 21.74 \end{array} $	$\begin{vmatrix} +1.23 \\ + & 4 \\ + & 5 \end{vmatrix}$	$  + 14 \\   + 54  $	$^{+20}_{-10}_{-13}$	6 7 8	22.94 23.60 22.71 23.38 24.14	42
	3 4 5 6 8		21.7830 13 24.8183 10 16.5420 23	6.1987 8.5880 6.1600 3.6563 6.6500	$^{+}_{+}$ $^{5}_{+}$	$ \begin{array}{c c}3 \\ + .7 \\4 \\ + .3 \\2 \end{array} $	$\begin{vmatrix}5 \\ +1.2 \end{vmatrix}$	40 37 44.34 40 32 44.13 40 33 23.51	$ \begin{array}{r} -120.79 \\ +338.99 \\ +259.88 \end{array} $	$\begin{vmatrix} + & 1 \\ - & 3 \\ - & 2 \end{vmatrix}$	<b>–</b> 5		7	23.19 23 65 23.31 23.51 23.63	

					Ler	els.			Correc	tions.				Ther.
1894.	Star.	P	Micrometer.	c	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom.
Nov 15 Nov 16	I 9 10 IV 1 3 4		21.3740   16.4710 9.0500 ii 30.9247 ii 20.4010   22.5993 27.8213   12.0550 17.0410   22.8723	$egin{array}{c} -47 \\ 0 \\ +28 \\ -10 \\ -1 \end{array}$	$\begin{vmatrix} +1.1 \\ +1.8 \\ +2.2 \end{vmatrix}$	$\begin{vmatrix} +1.2 \\ +1.8 \\ +1.7 \end{vmatrix}$	0 / 40 38 26.86 40 27 8.74 40 37 17.95 40 29 43.87 40 38 49.70	<b>—</b> 55.65	$\begin{array}{c c} +1.25 \\ + & 1 \\ - & 5 \end{array}$	+ 9 + 33 + 51 + 57 + 34	$egin{array}{c} -4 \\ +20 \\ -2 \\ +12 \\ -5 \\ \hline \end{array}$	13 7	40 36 23.16 23.65 22.93 23.16 22.68	40.3 51.1 50.4
	5 6 7 8 9		27.9033   11.7517 10.4210   129.0293   12.0507 21.9483   17.9087	$\left  egin{matrix} + & 6 \\ + & 2 \\ 0 \\ + & 62 \\ - & 3 \end{matrix} \right $	$\begin{vmatrix} +2.0 \\ -1.9 \\ -1.9 \end{vmatrix}$	$egin{pmatrix} + .8 \\ + .6 \\2 \\5 \\5 \end{pmatrix}$	40 29 32.48 40 28 31.80 40 30 22.69 40 43 27.64 40 38 5.43	$\begin{array}{c} + 750.47 \\ + 558.83 \\ - 7 4.30 \end{array}$	$ +1.26 \\ +1.27$	$egin{pmatrix} + & 29 \\ + & 40 \\ - & 33 \\ - & 37 \\ - & 3 \end{bmatrix}$	$+12 \\ +13 \\ +10 \\ -13 \\ -4$	6 7	22.58 24.11 22.62 22.96 23.36	50.2 48.6
	10 11 12 I 1 2	D	24.6363   14.6963 33.9737 <sup>1v</sup>   7.0647 <sup>1</sup> 14.2290   26.9187 27.4607   12.3677 20.2030   15.8040	+ 31	$\begin{array}{ c c c c } -1.3 \\ -2.4 \end{array}$	$egin{array}{c} .0 \\ .0 \\ -1.6 \\ -1.9 \\ +1.3 \end{array}$	40 40 34.56 40 25 1.36 40 41 44.90 40 42 44.68 40 34 32.15	+11 20.40 $-5 20.96$ $-6 21.56$	$\begin{vmatrix} +1.23 \\ + & 4 \\ + & 5 \end{vmatrix}$	$egin{pmatrix} + & 16 \\ + & 1 \\ - & 41 \\ - & 63 \\ - & 3 \end{bmatrix}$	$ \begin{array}{r} -7 \\ +20 \\ -10 \\ -13 \\ +4 \end{array} $	6 6 7 8 9	23.51 23.26 23.54 22.49 23.26	48.1 47.9 42.4
	3 4 5 6 7	R	28.7493 17.6100 15.3030 22.9240 11.4513 28.7493 20.8277 23.9753 15.8050 27.1937	$     \begin{array}{r}       +217 \\       -23 \\       -27 \\       -41 \\       -94     \end{array} $	$egin{array}{c} -0.6 \\ +0.2 \\ -1.7 \end{array}$	$7 \\ +.5$	40 42 16.50 40 37 44 41 40 32 44.21 40 33 23.56 40 43 2.12	-121.29 + 339.19	$egin{bmatrix} + & 1 \\ - & 3 \\ - & 2 \end{bmatrix}$	$egin{bmatrix} -&3 \\ -&18 \\ +&9 \\ -&46 \\ -&52 \\ \hline \end{smallmatrix}$	1	6 7 6 7	23.81 22.99 23.60 23.07 23.83	41.8
Nov 19	8 10 IV 1 2 3		16.0870 30.8757 <sup>iv</sup> 21.0467 17.2200 12.3730 22.9133 8.9823 <sup>i</sup> 18.8643 18.9160 28.1747		+.7	$egin{array}{c} +1.2 \\4 \\ +.2 \\ +.5 \\ -1.0 \\ \end{array}$	40 33 30.89 40 27 8.73 40 37 17.91 40 37 5.17 40 29 43.88	$ \begin{array}{c cccc} + & 9 & 13.52 \\ - & & 55.17 \\ - & & 42.80 \end{array} $	$egin{pmatrix} +1.25 \ + & 1 \ + & 1 \end{pmatrix}$	$egin{pmatrix} + & 33 \\ - & 26 \\ + & 2 \\ + & 18 \\ - & 14 \end{bmatrix}$	$\frac{\cdot}{-} \frac{2}{1}$	13 11	23.82 23.53 22.88 22.66 23.48	41.4 41.1 33.4 32.8
	4 5 6 7 8		22.2847 12.6187 <sup>ii</sup> 28.7783 <sup>i</sup> 29.7780 <sup>iv</sup> 11.2200 <sup>i</sup> 12.2940 <sup>ii</sup> 26.4623 <sup>i</sup> 29.7443 12.9443	i 4	$\begin{array}{c} .0 \\ + .3 \\ +1.6 \end{array}$	+2.2	40 28 31.94 40 30 23.86	$\left  egin{array}{c} + \ 6 \ 48.49 \\ + \ 7 \ 49.18 \\ + \ 5 \ 58.29 \end{array} \right $	$ \begin{array}{r} +1.27 \\ +1.26 \\ +1.27 \end{array} $	$egin{pmatrix} + & 3 \\ + & 10 \\ + & 32 \\ + & 43 \\ + & 13 \end{bmatrix}$	$^{+12}_{+13}$	6 5 6	22.73 22.60 22.88 23.01 22.81	31.4 30.5
	9 10 11 12 I 1		17.2573 15.4523 6.7777 ii 33.6613 i 25.5090 12.7457 12.9630 28.0240	$\begin{bmatrix} -27\\ +34\\ +13\\ -97\\ +62 \end{bmatrix}$	$\begin{vmatrix} & .0 \\ + .3 \\ .0 \end{vmatrix}$	3	40 40 34.86 40 25 1.68 40 41 45.26	$egin{array}{c} -4 & 12.70 \\ +11 & 19.71 \\ -5 & 22.44 \end{array}$	$egin{pmatrix} + & 3 \\ +1.23 \\ + & 4 \end{bmatrix}$	$\begin{vmatrix} + & 75 \\ - & 2 \\ + & 5 \\ - & 4 \\ - & 72 \end{vmatrix}$	$^{-7}_{+20}$	6 6 7	23.03 22.16 22.93 22.79 23.39	30.4 30.5 30.5 21.6
	2 3 4 5 6		18.3697 12.8100 22.5567 24.5150 16.3307 22.7830 26.7757 19.3610 15.8553 23.4477	$\frac{-27}{+27}$	$\begin{bmatrix}7 \\ -1.5 \end{bmatrix}$	$\begin{vmatrix} -2.0 \\ + .1 \end{vmatrix}$	40 42 16.83 40 37 44.70 40 32 44.46	$ \begin{array}{r} -553.02 \\ -120.86 \\ +338.97 \end{array} $	$\begin{vmatrix} + & 4 \\ + & 1 \\ - & 3 \end{vmatrix}$	$-\  \   \begin{array}{rrr} 36 \\ -\  \   22 \end{array}$	$egin{pmatrix} + & 4 \\ -10 \\ - & 3 \\ + & 7 \\ + & 5 \end{bmatrix}$	6	23.06 23.32 23.53 23.32 23.72	23.5
Nov 2)			12.5173 17.3997 18.3443 31.1050 tv 20.5257 28.2753 24.2383 23.2617 9.2247 22.7080	$ +\ 34 \\ +\ 1$	$ \begin{array}{c c} -1.9 \\ -1.2 \\ +1.0 \\ -1.8 \\ +3.2 \end{array} $	$\begin{vmatrix}1 \\ +1.8 \\4 \end{vmatrix}$	40 43 2.31 40 33 31.01 40 38 26.95 40 27 8.58 40 37 17.85	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{c} - & 2 \\ + & 2 \\ +1.25 \end{array}$	$\begin{bmatrix} - & 21 \\ + & 38 \end{bmatrix}$	$\begin{array}{ c c } + 5 \\ - 4 \\ + 20 \end{array}$	6 7 9	23.47 23.91 22.97 22.97 23.46	
	2 3 4 5 6		21.3423 27.7907 17.4393 28.5177 iv 11.3927 ii 29.9837 i	-18	$ \begin{array}{c c}  & + .7 \\  &9 \\  & -1.4 \\  & -1.8 \\  & + .6 \end{array} $	-3	40 29 43.85	$ \begin{array}{r} + 639.04 \\ - 227.38 \\ + 649.72 \end{array} $	$egin{pmatrix} -5 \ +2 \ +1.27 \end{bmatrix}$	- 26 - 41	$     \begin{array}{r}       +12 \\       -5 \\       +12     \end{array} $	7 10 6	23.18 22.90 22.18 23.31 23.48	30.5 30.0 29.2
	7 8 9 10 11		26.8103 <sup>iv</sup> 12.6363 22.0370 24.9803 34.7383 <sup>iv</sup> 17.8453	+146 + 104 - 104	$\begin{bmatrix}8 \\ -1.0 \\2 \end{bmatrix}$	$\begin{vmatrix} + .4 \\ -1.6 \\6 \end{vmatrix}$	40 30 22.88 40 43 27.87 40 38 5.72 40 40 34.91 40 25 1.75	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$egin{pmatrix} + & 5 \\ + & 1 \\ + & 3 \end{bmatrix}$	$ \begin{array}{r r} - & 8 \\ - & 36 \\ - & 10 \end{array} $	$     \begin{array}{r r}       -13 \\       -4 \\       -7     \end{array} $	7 11 6	22.83 23.52 23.19 23.81 23.34	29.2 28.9

4.36	~.	_				Lev	els.			Correc	tions.				Ther
18 <b>9</b> 4.	Star.	P	Micron	neter.	c	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r	Mer	Latitude.	mom
Nov 20 21	IV12 IV 1 2 3 4		20.6937 20.4387 11.8557	27.2717 18.5387 22.1210 27.6553 16.5407	$ \begin{array}{r} +100 \\ -7 \\ +17 \\ -34 \\ -28 \end{array} $	-1.1 + 1.1	$egin{array}{c} -2.2 \\ +1.0 \\ +.9 \\ .0 \\ +1.3 \\ \end{array}$	40 41 45.34 40 37 17.79 40 37 5.07 40 29 43.80 40 38 49.72	$ \begin{array}{rrr} - & 54.47 \\ - & 42.58 \\ + & 6 & 39.36 \end{array} $	$\begin{vmatrix} + & 1 \\ + & 1 \\ - & 5 \end{vmatrix}$	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$     \begin{array}{r}       -10 \\       -2 \\       -1 \\       +12 \\       -5     \end{array} $	13 11 7	0 36 23.33 23.79 22.69 23.48 22.46	39.8 39.8 39.4
	5 6 7 8 9			11.5077 <sup>11</sup>	- 8	$\frac{2}{+2.8}$	$ \begin{array}{c}3 \\ +1.8 \\ +2.0 \\4 \\ +.7 \end{array} $	40 29 32.53 40 28 31.94 40 30 22.88 40 43 27.89 40 38 5.75	$\left  egin{matrix} + & 7 & 49.49 \\ + & 5 & 57.98 \\ - & 7 & 4.07 \end{matrix} \right $	$egin{array}{c} +1.26 \\ +1.27 \\ + & 5 \end{array}$	$egin{bmatrix} -&22\ +&19\ +&70\ -&&3\ +&41 \end{bmatrix}$	$+12 \\ +13 \\ +10 \\ -13 \\ -4$	6	23.21 23.06 22.99 23.78 23.38	39.2 38.9 38.6
Novi 22	10 11 12 IV 1 2	$\mathbf{R}$	7.7377 <sup>11</sup> 26.9027 18.5247	24.8623 34.6267 iv 14.1630 20.6963 19.4100	$ \begin{array}{r} -10 \\ +71 \\ +58 \\ -7 \\ +2 \end{array} $	$\begin{vmatrix} + & .3 \\ -1.2 \\ +2.6 \end{vmatrix}$	$\begin{vmatrix} + .6 \\4 \\5 \\ + .8 \\ -1.4 \end{vmatrix}$	40 40 34.96 40 25 1.80 40 41 45.40 40 37 17.73 40 37 5.02	$+11\ 20.00$ $-5\ 22.24$ $-54.89$	$  \begin{array}{c} +1.23 \\ + & 4 \end{array}  $	$ \begin{vmatrix} + & 9 \\ 0 \\ - & 26 \\ + & 53 \\ - & 35 \end{vmatrix} $	$     \begin{array}{r}       -7 \\       +20 \\       -10 \\       -2 \\       -1     \end{array} $	7	23.03 23.29 22.91 23.48 23.01	38.4 41.5 41.6
	4 5 6 7 8		28.0037 iv 10.7070 ii 26.8330 iv	29.2763 iv	+ 0	$\begin{vmatrix} + .4 \\ +1.5 \\2 \end{vmatrix}$	$\begin{vmatrix} +1.1 \\ + .1 \\ +1.6 \\ +1.0 \\ + .3 \end{vmatrix}$	40 38 49.69 40 29 32.53 40 28 31.93 40 30 22.88 40 43 27.90	$     \begin{array}{r}     + 648.75 \\     + 749.47 \\     + 558.32     \end{array} $	$egin{pmatrix} +&2\ +1.27\ +1.26\ +1.27\ +&5 \end{bmatrix}$	$egin{pmatrix} + & 27 \\ + & 8 \\ + & 44 \\ + & 9 \\ + & 4 \end{bmatrix}$	$     \begin{array}{r}       -5 \\       +12 \\       +13 \\       +10 \\       -13     \end{array} $	6 5	22.70 22.81 23.28 22.72 23.04	41.6 41.2 41.1
Nov 24	9 10 11 12 I 1	D	25.2903 33.7200 iv 14.3287	19.5027 15.3170 6.8087 ii 27.0830 11.8360	$   \begin{array}{r}     + 55 \\     + 26 \\     + 15 \\     + 78 \\     - 80   \end{array} $	$\begin{vmatrix} +2.1 \\6 \\2 \end{vmatrix}$	$ \begin{array}{r r} -1.4 \\ +1.0 \\5 \\ -1.3 \\ -2.2 \end{array} $	40 38 5.78 40 40 35.00 40 25 1.85 40 41 45.45 40 42 45.45	$ \begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{vmatrix} + & 3 \\ +1.23 \\ + & 4 \end{vmatrix}$	$\begin{array}{r} - & 32 \\ + & 46 \\ - & 16 \\ - & 19 \\ - & 50 \end{array}$	$ \begin{array}{r} -4 \\ -7 \\ +20 \\ -10 \\ -13 \end{array} $	11 6 6 7 8	22.92 23.27 23.60 22.61 22.83	41. 41. 35.
	2 3 4 6 7		27.6900 18.3613 23.7293	17.9163 13.7113 21.6080 16.6347 12.0913	$egin{pmatrix} + & 4 \\ + & 86 \\ - & 2 \\ + & 12 \\ - & 2 \end{bmatrix}$	$ \begin{array}{r r}2 \\ -1.1 \\ -1.3 \end{array} $	+1.1  + .1 5 4 4	40 34 32.83 40 42 17.21 40 37 45.02 40 33 24.05 40 43 2.52	$ \begin{array}{r} -553.63 \\ -122.08 \\ +259.40 \end{array} $	$\begin{vmatrix} + & 4 \\ + & 1 \\ - & 2 \end{vmatrix}$	$-\  \   \frac{1}{-\  \   24}$	$     \begin{array}{r}       + 4 \\       -10 \\       - 3 \\       + 5 \\       -12     \end{array} $	9 6 7 6 7	23.60 23.57 22.75 23.28 23.01	35. 35.
Nov 26	IV 1 2 3 4	D	20.8280 18.7050 13.0083	16.3450 18.6757 20.3593 28.8123 17.5610	$     \begin{array}{r}       -17 \\       -5 \\       -6 \\       +125 \\       +22 \\    \end{array} $	$\begin{vmatrix} + .6 \\ .0 \\ + .3 \end{vmatrix}$	$egin{array}{c} +1.9 \\ + .3 \\2 \\5 \\4 \end{array}$	40 33 31.13 40 37 17.59 40 37 4.91 40 29 43.66 40 38 49.66	$ \begin{array}{rrr}  & 54.40 \\  & 41.81 \\  & 6 39.88 \end{array} $	$\begin{vmatrix} + & 1 \\ + & 1 \\ - & 5 \end{vmatrix}$	+ 32 + 13 - 2 - 1 - 18	$   \begin{array}{r}     +5 \\     -2 \\     -1 \\     +12 \\     -5   \end{array} $	6 13 11 7 10	23.79 23.44 23.19 23.67 22.68	35. 32. 32. 32.
	5 6 7 8 9			11.7713 ii	- 13	$\left  { +2.0 \atop + .9 \atop + .4 } \right $	$\begin{vmatrix} -1.7 \\ +1.5 \\ +.2 \\8 \\ .0 \end{vmatrix}$	40 43 28.00	$\begin{array}{c} + 749.23 \\ + 558.59 \\ - 7 4.53 \end{array}$	$\left  { +1.26 \atop +1.27 \atop +} \right $	$\begin{array}{r} - & 41 \\ + & 51 \\ + & 12 \\ - & 4 \\ + & 3 \end{array}$	$+12 \\ +13 \\ +10 \\ -13 \\ -4$	6 7	23.00 23.13 23.07 23.42 23.10	31. 31.
Nov 27	10 11 12 IV 1 2		7.2520 ii 26.9593 20.6747	25.1353 34.1707 iv 14.2100 22.8660 19.9877	+43	$ \begin{array}{r}7 \\ -1.8 \\3 \\ +1.4 \\ +.4 \end{array} $	-1.8	40 25 2.06 40 41 45.70 40 37 17.58	$+11\ 20.68$ $-5\ 22.49$ $-55.49$	$\begin{vmatrix} +1.23 \\ + & 4 \\ + & 1 \end{vmatrix}$	- 51 - 12	$^{+20}_{-10}_{-2}$	6 7 13	23.17 23.72 23.10 22.62 22.91	31. 32. 47.
	3 4 5 6 7			29.5523 iv	$\begin{bmatrix} -34 \\ -22 \\ -2 \end{bmatrix}$	$ \begin{vmatrix}1 \\ +1.1 \\ +.8 \\ +2.5 \\9 \end{vmatrix} $	$\left  { \begin{array}{c} + \ .1 \\ + \ .5 \\ + \ .7 \\ + 1.1 \\ + \ .3 \end{array}} \right $	40 29 32.48 40 28 31.98	$ \begin{array}{r} -227.89 \\ +648.27 \\ +748.80 \end{array} $	$egin{pmatrix} + & 2 \\ +1.27 \\ +1.26 \\ \hline \end{pmatrix}$	$^{ }_{+}$ $^{24}_{22}$	$^{+12}_{+13}$	10 6 5	22.95 22.09 22.42 22.76 22.27	47. 48. 47.
	8 9 10 11 12		22.4877 25.2593 33.3337 iv	29.2143 18.4293 15.2620 6.4587 ii 27.0530	$\begin{array}{ c c c c c } + & 22 \\ - & 8 \end{array}$	$\left  \begin{array}{c} + .4 \\ +1.6 \\ +1.3 \\ +1.2 \\5 \end{array} \right $	$ \begin{array}{c c} + .3 \\ +1.5 \\ + .5 \\ +1.2 \\3 \end{array} $	40 40 35.25 40 25 2.14	-142.65 $-412.81$ $+1119.44$	$\begin{vmatrix} + & 1 \\ + & 3 \\ +1.23 \end{vmatrix}$	$  \begin{array}{c} + & 27 \\ + & 34 \end{array}  $	$     \begin{array}{r r}     -13 \\     -4 \\     -7 \\     +20 \\     -10 \\     \end{array} $	11 6 6	22.78 23.88 22.73 23.41 23.08	47. 46. 46.

<sup>\*</sup> Hurried.

cot	, a		15.			Let	vels.			Correc	tions.				The
894.	Star.	P	Micro	meter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mon
Nov 27 Tov 28	I 1 2 3	7	13.1997 17.2260 13.0837 21.6647 19.6687	28.3063 21.5887 27.0707 19.4820 21.3497	-25	$^{+}_{-}.5$ $^{-}_{-}.5$ $^{+1.0}_{-}.0$	1 1	0 / // 40 42 45.60 40 34 32.95 40 42 17.35 40 37 17.57 40 37 4.89	$egin{pmatrix} + & 1 & 50.24 \\ - & 5 & 53.65 \\ - & 55.21 \end{bmatrix}$	$egin{bmatrix} - & 1 \\ + & 4 \\ + & 1 \end{bmatrix}$	$egin{pmatrix} + & 6 \ - & 6 \ - & 22 \ + & 23 \ - & 0 \end{bmatrix}$	$egin{array}{c} -13 \\ +4 \\ -10 \\ -2 \\ -1 \end{array}$	9 6 13	40 36 23,48 23,25 23,48 22,71 22,49	41. 41. 40. 31.
	3 4 5 6 7		21 6667	28.4220 15.8277 27.3047 iv 11.1400 in 27.0350 iv	$egin{pmatrix} + & 73 \\ - & 64 \\ + & 28 \\ - & 3 \\ + & 1 \end{bmatrix}$	$egin{pmatrix} + .2 \\ + .3 \\ + 3.5 \\ .0 \\ + 2.0 \\ \end{matrix}$	$egin{array}{c}1 \\ +.5 \\ +2.7 \\ +1.1 \\ +.8 \end{array}$	40 29 43.65 40 38 49.68 40 29 32.49 40 28 32.01 40 30 23.00	$egin{array}{l} -227.46 \ +650.33 \ +749.60 \end{array}$	$\left  { + \atop { + 1.27}\atop { + 1.26}} \right $	$\begin{array}{c c} + & 11 \\ + & 90 \end{array}$	$ \begin{array}{r} +12 \\ -5 \\ +12 \\ +13 \\ +10 \end{array} $	6	23.08 22.40 [25.17] 23.19 23.22	30. 30.
ov	8 9 10 11 12		28.3753 19.7630 14.8387 7.3597 <sup>11</sup> 26.5347	11.5720 23.8430 24.8373 34.2490 10 13.7597	$^{+}_{-}$ $^{65}_{-}$ $^{-}$ $^{49}$	$egin{array}{c}1 \ -1.1 \2 \ +1.2 \ +2.6 \end{array}$	$egin{bmatrix}5 \\ + .1 \\ + .7 \\8 \\ +1.9 \\ \hline \end{bmatrix}$	40 43 28.09 40 38 6.06 40 40 35.33 40 25 2.22 40 41 45.87	-143.36  -412.75  +1119.95	$egin{pmatrix} + & 1 \ + & 3 \ + 1.23 \end{bmatrix}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$     \begin{array}{r}       -13 \\       -4 \\       -7 \\       +20 \\       -10     \end{array} $	7 11 6 6 7	23.18 22.62 22.66 23.75 23.52	29. 29. 29.
	IV 1 2 3 4 5		20.7197 21.5377 28.4770 17.2020 28.5883 iv	22.8857 19.8917 12.6757 23.9917 12.4117 ii	- 71	$\begin{array}{c} .0 \\ +1.0 \\5 \\ -2.1 \\ + .4 \end{array}$	$egin{bmatrix} -\ .7 \ -\ .1 \ +\ .4 \ -1.4 \ +\ .9 \ \end{bmatrix}$	40 37 17.54 40 37 4.87 40 29 43.60 40 38 49.68 40 29 32.50	$     \begin{array}{r}                                     $	$egin{bmatrix} + & 1 \\ - & 5 \\ + & 2 \end{bmatrix}$	$\begin{array}{c c} + & 14 \\ - & 3 \end{array}$	$     \begin{array}{r}       -2 \\       -1 \\       +12 \\       -5 \\       +12     \end{array} $	11 7	22.72 23.48 23.38 22.77 23.06	28 27
	6 7 8 9 10			29.6807 iv 12 3760 ii 29.2210 18.9147 14.9663	$^{+\ 28}_{+\ 120}_{+\ 34}$	$egin{array}{c} -1.2 \\ +.7 \\ -1.5 \\ +1.6 \\ +1.6 \end{array}$	$egin{bmatrix} -1.6 \\ +.5 \\ .0 \\ +.7 \\ .0 \end{bmatrix}$	40 28 32.02 40 30 23.03 40 43 28.13 40 38 6.13 40 40 35.39	$ \begin{array}{r rrrr} + 5 58.62 \\ - 7 & 4.32 \\ - 1 & 43.01 \end{array} $	$egin{pmatrix} +1.27 \\ + & 5 \\ + & 1 \end{pmatrix}$	$ \begin{array}{r}  -39 \\  +18 \\  -24 \\  +35 \\  +26 \end{array} $	$+13 \\ +10 \\ -13 \\ -4 \\ -7$	7	23,23 23,26 23,56 23,55 23,66	27
ec. 3	11 12 IV 3 4 5	D	33.3627 iv 14.2643 12.4063 22.4830 11.9337 ii	6.4703 ii 27.0357 28.2207 16.6803 28.1047 iv	+70  +43  -21	-1.7 $-1.3$ $-1.3$ $+1.1$	$egin{bmatrix}4 \\ + .3 \\ + .5 \\6 \\ + 1.4 \end{bmatrix}$	40 41 45.96 40 29 43.38 40 38 49.53	$egin{bmatrix} -5&23.07 \\ +6&39.93 \\ -2&26.65 \end{matrix}$	$egin{bmatrix} + & 4 \\ - & 5 \\ + & 2 \end{bmatrix}$	$\begin{array}{c c} + & 3 \\ + & 11 \\ - & 28 \end{array}$		6 7 7 10 6	23.36 22.93 23.56 22.67 22.98	26 35 35
	6 7 8 9 10		12.563711 29.6850 17.6487	11.4100 ii 26.7437 iv 12.8897 21.7300 25.4813	$^{+\ 18}_{+190} \ -\ 12$	$egin{array}{c} + .2 \\ + .6 \\ + 3.0 \\ + .3 \\ + 1.3 \end{array}$	$egin{array}{c} +1.8 \\ -2.2 \\ +.5 \\ +1.0 \\ +1.9 \\ \end{array}$	40 28 31.93 40 30 22.97 40 43 28.14 40 38 6.23 40 40 35.52	$ \begin{array}{r} + 558.55 \\ - 75.10 \\ - 143.15 \end{array} $	$\begin{vmatrix} +1.27 \\ + & 5 \\ + & 1 \end{vmatrix}$	$egin{pmatrix} + & 6 \\ + & 55 \\ + & 18 \\ \end{matrix}$	-13		23.34 23.01 23.58 23.34 23.23	34 34 35
	11 12 I 1 2 3		6.9557 ii 26.7077 26.5607 21.7547 26.6410	33.8453 iv 13.8920 11.4043 17.4307 12.6173	$^{+34}_{-136}$ $-16$	$ \begin{array}{r}3 \\ +2.6 \\ + .4 \\ -1.9 \\ + .6 \end{array} $	$ \begin{array}{c c} -1.0 \\ +2.1 \\ + .2 \\ -1.1 \\4 \end{array} $	40 25 2.47 40 41 46.18 40 42 46.30 40 34 33.58 40 42 18.00	$ \begin{array}{r} -524.10 \\ -622.85 \\ +149.28 \end{array} $	$\begin{vmatrix} + & 4 \\ + & 5 \\ - & 1 \end{vmatrix}$	- 44	$^{+20}_{-10}_{-13}_{+4}_{-10}$	6 7 8 9 6	23.69 22.77 23.54 22.54 23.60	35 30 30
	4 5 6 7 8		17.8490 16.4910 23.6993 27.4757 23.3970	21.1270 25.1323 16.6310 11.6927 16.5873	$egin{array}{c} -61 \\ +10 \\ -59 \end{array}$	-1.4	6 3 9	40 37 45.69 40 32 45.37 40 33 24.59 40 43 2.96 40 33 31.40	$egin{array}{c} + & 3 & 38.63 \\ + & 2 & 58.73 \\ - & 6 & 38.88 \end{array}$	$\begin{bmatrix} - & 3 \\ - & 2 \\ + & 5 \end{bmatrix}$	- 19 - 26 - 14	$^{+}_{+}{}^{7}_{5}_{-12}$	7 7 6 7 6	23.26 23.92 23.15 23.94 23.32	30 30 29
ec. 4	10 IV 2 3 4	D	$\frac{18.3543}{29.8337}$	16.6993 30.5260 <sup>iv</sup> 20.0010 14.0693 24.6157	$\begin{bmatrix} - & 6 \\ - & 12 \\ +270 \end{bmatrix}$	8 $1$ $-1.4$ $+2.0$ $-2.8$	$ 6 \\ +2.0$	40 38 27.21 40 27 8.85 40 37 4.48 40 29 43.28 40 38 49.44	$egin{array}{cccc} +& 9&13.05 \ -& & 41.60 \ +& 6&39.24 \end{array}$	$egin{pmatrix} +1.25 \\ + & 1 \\ - & 5 \end{bmatrix}$	- 9	$ \begin{array}{r} -4 \\ +20 \\ -1 \\ +12 \\ -5 \end{array} $	7	22.90 23.35 22.69 23.23 22.14	30 36 35 35
	5 6 7 8 9		26.8930 iv 11.1157	29.38601v	0	+ .8	2	40 29 32.26 40 28 31.86 40 30 22.91 40 43 28.10 40 38 6.21	$\begin{array}{r} + \ 6\ 48.70 \\ + \ 7\ 49.73 \\ + \ 5\ 58.94 \\ - \ 7\ \ 4.71 \\ - \ 1\ 42.79 \end{array}$	$egin{array}{c} +1.26 \\ +1.25 \\ +1.26 \\ +& 5 \\ +& 1 \end{array}$	$egin{pmatrix} + & 27 \\ + & 8 \\ - & 21 \\ - & 5 \\ - & 9 \end{bmatrix}$	$     \begin{array}{r}     +12 \\     +13 \\     +10 \\     -13 \\     -4     \end{array} $	7	22.67 23.10 23.06 23.33 23.41	35 34 34

1001	g-	Ī.		25		~	Ler	els.	1/0		Correct	ions.			Tatituda	Ther-
1894.	Star	. 1		Micron	neter.	<i>c</i>	A	В	$\frac{1}{2}(\delta + \delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom.
Dec.	I	1 2	<b>R</b>	32.8613 <sup>iv</sup> 13.3743 19.6447 <sup>iv</sup>	14.3150 5.9793 <sup>ii</sup> 26.1567 34.8273 <sup>ii</sup> 22.6983	27	$ \begin{array}{c c} -1.1 \\ -1.2 \\ + .9 \end{array} $	$\left  { + .7 \atop -1.2} \atop -1.2 \atop5 \atop -2.8 \right $	40 40 35.51 40 25 2.47 40 41 46.19 40 42 46.41 40 34 33.69	$\begin{array}{r} - & 4 \ 12.08 \\ +11 \ 19.55 \\ - & 5 \ 23.10 \\ - & 6 \ 22.93 \\ + & 1 \ 50.22 \end{array}$	$egin{array}{c} + & 3 \\ +1.23 \\ + & 4 \\ + & 5 \\ - & 1 \\ \end{array}$	+ 22 - 33 - 34 + 8 - 80		6 6 7 8 9	40 36 23.67 23.18 22.76 23.56 23.23	33.9 33.8 27.8
		3 4 5 6 7		21.8250 24.6377 16.2747	26.5827 18.5843 16.0233 23.3473 28.7483	$ \begin{array}{r} -53 \\ +5 \\ +25 \\ -11 \\ +121 \end{array} $	$\begin{array}{c c} + .2 \\ -1.2 \\2 \end{array}$	$ \begin{array}{c c} -2.1 \\8 \\ +.1 \\ .0 \\ -1.2 \end{array} $	40 42 18.12 40 37 45.80 40 32 45.43 40 33 24.69 40 43 2.95	+337.86	$\begin{vmatrix} + & 1 \\ - & 3 \\ - & 2 \end{vmatrix}$	- 65 - 7 - 13 - 3 - 66	$     \begin{array}{r}       -10 \\       -3 \\       +7 \\       +5 \\       -12     \end{array} $	6 7 6 7	22.84 23.84 23.27 23.53 23.64	28.7
Dec. <b>5</b>		8 9 0 2 3	D	17.9533 31.8800 <sup>iv</sup> 18.1143	23.3507 22.8873 9.9940 <sup>11</sup> 19.7503 27.1013	$egin{array}{cccc} - & 5 \\ + & 19 \\ + & 16 \\ - & 15 \\ - & 111 \end{array}$	+1.4	$ \begin{array}{r} + .2 \\ + .4 \\3 \\ + .4 \\5 \end{array} $	40 33 31.48 40 38 27.28 40 27 8.90 40 37 4.37 40 29 43.16	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	+1.24	$egin{pmatrix} + & 2 \\ + & 10 \\ - & 23 \\ + & 27 \\ + & 1 \end{bmatrix}$	$     \begin{array}{r}       +5 \\       -4 \\       +20 \\       -1 \\       +12     \end{array} $	6 7 9 11 7	23.84 22.64 23.57 23.43 23.53	28.0 32.4
	Andrew - make a republic - and great	4 5 6 7 8		11.7123 <sup>ii</sup> 29.7927 <sup>iv</sup> 12.7483 <sup>ii</sup>	11.2127 ii	<u> </u>	$\begin{vmatrix} + .1 \\ + .9 \\ + .9 \end{vmatrix}$	$ \begin{array}{c c}8 \\ + .3 \\ + 1.6 \\ .0 \\ + .8 \end{array} $	40 38 49.35 40 29 32.16 40 28 31.78 40 30 22.84 40 43 28.04	+749.74 +558.86	$\left  egin{array}{c} +1.26 \\ +1.25 \\ +1.26 \end{array} \right $	$ \begin{array}{rrrr}  & -24 \\  & + 5 \\  & + 34 \\  & + 15 \\  & + 34 \end{array} $	$ \begin{array}{r} -5 \\ +12 \\ +13 \\ +10 \\ -13 \end{array} $	5 6	22.70 23.06 23.29 23.27 23.55	31.8
	1	9 10 12 1		14.2147 6.1267 27.9490	21.9350 24.2123 33.0233 14.2660 11.0167	$ \begin{array}{r r} - & 4 \\ - & 69 \\ - & 28 \\ + & 74 \\ - & 188 \end{array} $	$\begin{vmatrix} .0 \\ + .3 \\ + .1 \end{vmatrix}$	$ \begin{array}{c c} -1.0 \\ + .1 \\ -1.0 \\8 \\ -1.1 \end{array} $	40 38 6.17 40 40 35.48 40 25 2.45 40.41 46.18 40 42 46.52	-412.59 $+1119.94$ $-523.37$	$egin{bmatrix} + & 3 \\ +1.22 \\ + & 4 \end{bmatrix}$	$egin{bmatrix} -&22\ +&1\ -&7\ -&8\ -&38 \end{bmatrix}$	$ \begin{array}{c c} -4 \\ -7 \\ +20 \\ -10 \\ -13 \end{array} $	11 6 6 7 8	22.43 22.92 23.80 22.74 23.02	33.0 33.0 28.8
		2 3 4 5 6		27.8253 17.8697	16.5693 13.7760 21.1373 23.3657 16.7520	$ \begin{array}{c c} -49 \\ +100 \\ -16 \\ -70 \\ +18 \end{array} $	$\begin{array}{c c} +2.6 \\ -1.9 \end{array}$	$\begin{vmatrix} .0 \\ + .8 \\ -1.5 \\ +1.0 \\ + .7 \end{vmatrix}$	40 34 33.79 40 42 18.22 40 37 45.88 40 32.45.52 40 33 24.78	$ \begin{array}{r} -555.45 \\ -122.57 \\ +337.50 \end{array} $	$\begin{vmatrix} + & 4 \\ + & 1 \\ - & 3 \end{vmatrix}$	$\begin{array}{ c c c c }\hline - & 11 \\ + & 52 \\ - & 49 \\ + & 40 \\ - & 2\end{array}$	$egin{array}{c} +4 \\ -10 \\ -3 \\ +7 \\ +5 \\ \hline \end{array}$	6	22.86 23.29 22.87 23.53 23.37	29.0
Dec.		7 8 9 10 2		28.0870 24.0273 23.3690 8.7007 ii 21.1620	12.2920 17.2507 18.4447 30.5733 <sup>13</sup> 19.5133	$ \begin{array}{r} + 17 \\ + 38 \\ + 40 \\ - 6 \\ + 2 \end{array} $	$\begin{array}{c c}5 \\ +1.2 \\ .0 \end{array}$	$\begin{vmatrix} + .4 \\ + .2 \\ + .1 \\4 \\2 \end{vmatrix}$	40 43 3.13 40 33 31.55 40 38 27.34 40 27 8.95 40 37 4.26	$ \begin{array}{r} + 251.42 \\ - 2 4.60 \\ + 9 12.97 \end{array} $	$egin{array}{c} -2 \\ +2 \\ +1.24 \\ \end{array}$	$egin{bmatrix} - & 1 \\ - & 5 \\ + & 21 \\ - & 5 \\ + & 7 \end{bmatrix}$	$-4 \\ +20$	$\begin{bmatrix} 6 \\ 7 \\ 9 \end{bmatrix}$	23.74 23.01 23.00 23.40 22.75	29.8 29.8 41.0
		3 4 5 6 7		26.9157 16.9040 28.1230 <sup>iv</sup> 10.5157 <sup>ii</sup> 26.6153 <sup>iv</sup>	29.0940iv	r + 2	$\left  { \begin{array}{c}3 \\ +.9 \\ +2.3 \end{array}} \right $	+ .8  + .8	40 29 43.05 40 38 49.26 40 29 32.06 40 28 31.70 40 30 22.77	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} + & 2 \\ +1.26 \end{array}$	$\left  egin{array}{cccc} + & 45 \\ + & 5 \\ + & 24 \\ + & 52 \\ - & 17 \end{array} \right $	$ \begin{array}{c c} -5 \\ +12 \\ +13 \end{array} $	16 6 5	22.71 22.26 22.70 23.36 22.45	39.8 39.4
	:	8 9 10 11 12		32 7040iv	29.0380 18.7560 14.6983 5.8193 i 25.8323	-28 $-46$	$\begin{vmatrix} +1.9 \\5 \end{vmatrix}$	$\begin{vmatrix} + .9 \\ -1.7 \\ + .7 \end{vmatrix}$	40 38 6.14 40 40 35.45	-143.68 $-411.86$ $+1119.59$	$\begin{vmatrix} + & 1 \\ + & 3 \\ + 1.22 \end{vmatrix}$	$\begin{vmatrix} - & 1 \\ + & 41 \\ - & 29 \\ + & 9 \\ - & 90 \end{vmatrix}$	$egin{bmatrix} -4 \ -7 \ +20 \ \end{matrix}$	11 6 6	22,98 22,95 23,32 23,59 22,76	38.0
	I	2 3 4 5 6	R	19.5957 12.4370 22.2833 24.8327 15.4497	23.9017 26.4870 19.0350 16.2260 22.4907	- 19 + 38	$\begin{vmatrix} + .7 \\8 \\ +1.1 \\4 \\ +2.3 \end{vmatrix}$	$\begin{bmatrix}4 \\ .0 \\ +1.3 \end{bmatrix}$	40 42 18.31 40 37 45.98	$ \begin{array}{c c} -555.06 \\ -122.17 \\ +337.69 \end{array} $	$\begin{vmatrix} + & 4 \\ 7 & + & 1 \\ - & 3 \end{vmatrix}$	+ 18	-10	6	24.04 23.49	32.8
Dec. 23		7 8 9 10 1	Ď	11.3197 16.3680 17.7680 29.8953 <sup>tv</sup> 28.7647	27.1473 23.1507 22.6917 8.0533 13.5567	+10	$egin{array}{c}  +1.8 \ 0  +.1 \ 6  +2.8 \end{array}$	$\begin{vmatrix} +1.3 \\ -3 \\ +1.9 \end{vmatrix}$	40 38 27.38	$egin{array}{c c} + & 2 & 51.46 \\ \hline - & 2 & 4.5 \\ + & 9 & 12.16 \\ \hline \end{array}$	$egin{array}{c c} 5 & - & 2 \ 1 & + & 2 \ 3 & + 1.24 \end{array}$	$\begin{vmatrix} + & 45 \\ - & 2 \\ + & 69 \end{vmatrix}$	$\begin{vmatrix} + & 5 \\ - & 4 \\ +20 \end{vmatrix}$	6 1 7 ) 9	23.58 22.90 23.40	32.3 32.4

	T .						Let	vels.			Correct	ons.			7	Ther
1894.	St	ar.	P	Micro	meter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom
Dec. 23	I	2 3 4 5 6	D	21.6553 27.7150 17.3803 16.6607 23.5260	17.3987 13.6193 20.7050 25.1977 16.5450	$+80 \\ -27$	-1.2 + .2	6	0 / // 40 34 35.34 40 42 19.93 40 37 47.41 40 32 46.92 40 33 26.16	$ \begin{array}{r} -556.64 \\ -124.00 \\ +336.04 \end{array} $	$\begin{vmatrix} + & 6 \\ + & 2 \\ - & 4 \end{vmatrix}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	—10 — 3	7	40 36 22.87 23.38 23.19 23.19 23.18	24.8 24.2
Dec. 27	I	7 8 9 10 1	$\mathbf{R}$	28.7133 23.3290 22.5357 9.4103 ii 12.6830	12.9107 16.5903 17.5483 31.2567iv 27.9537	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$+1.3 \\ +1.9$	+1.0	40 43 4.33 40 33 32.52 40 38 28.19 40 27 9.55 40 42 48.58	$egin{pmatrix} +& 250.39 \ -& 2& 6.12 \ +& 912.43 \end{matrix}$	$egin{array}{cccc} -& 3 \\ +& 2 \\ +1.15 \end{array}$	$\begin{array}{r} - & 35 \\ + & 14 \\ + & 27 \\ + & 35 \\ + & 68 \end{array}$	$ \begin{array}{r} -12 \\ +5 \\ -4 \\ +20 \\ -13 \end{array} $	9	24.12 23.13 22.39 23.77 23.03	24.4 24.4 17.8
		2 3 4 5 6		18.5187 13.3250 23.7157 24.3573 16.2430	22.7807 27.4487 20.3860 15.8163 23.2077	$   \begin{array}{r}     + 24 \\     + 46 \\     + 59 \\     + 6 \\     - 19   \end{array} $	$\left  egin{array}{l} +1.9 \\ +2.4 \\ -1.9 \end{array} \right $	$ \begin{array}{c c}3 \\ +1.5 \\ +1.0 \\2 \\ +2.0 \end{array} $	40 34 35.71 40 42 20.32 40 37 47.78 40 32 47.25 40 33 26.49	$ \begin{array}{r} -557.26 \\ -124.35 \\ +335.99 \end{array} $	$\begin{vmatrix} + & 6 \\ + & 2 \\ - & 4 \end{vmatrix}$	$\begin{array}{rrr} - & 4 \\ + & 49 \\ + & 51 \\ - & 33 \\ + & 59 \end{array}$	$ \begin{array}{r} +4 \\ -10 \\ -3 \\ +7 \\ +5 \end{array} $	$\begin{bmatrix} 6 \\ 7 \\ 7 \end{bmatrix}$	23.61 23.57 24.00 23.01 23.23	18.4 18.2
Dec. 28	I	7 8 9 10 1	D	12.9983 17.4077 17.5133 29.9113 <sup>ix</sup> 27.4567	28.8710 24.1670 22.4287 8.0893 ii 12.1920	_ 2	$\begin{vmatrix} +.7 \\ -2.7 \\ -1.1 \end{vmatrix}$	$\begin{vmatrix} +2.2 \\ + .9 \\7 \\ + .5 \\ + .9 \end{vmatrix}$	40 43 4.63 40 33 32.79 40 38 28.41 40 27 9.72 40 42 48.71	$ \begin{array}{r} + 251.04 \\ - 2 4.29 \\ + 911.77 \end{array} $	$egin{array}{c} -3 \\ +2 \\ +1.15 \end{array}$	$\begin{array}{r} + & 36 \\ + & 23 \\ - & 52 \\ - & 11 \\ + & 10 \end{array}$	$     \begin{array}{r}       -13 \\       +5 \\       -4 \\       +20 \\       -13     \end{array} $	6 7 9	23.30 24.14 23.65 22.82 22.89	18.5 18.5 11.8
		2 3 4 5 6		21.7910 27.5537 17.9263 15.7367 22.3817	17.5467 13.5117 21.2357 24.2853 15.3710	$ \begin{array}{r}  - 13 \\  + 65 \\  - 14 \\  + 2 \\  - 68 \end{array} $	3 $-1.0$	$\begin{array}{c c} + .1 \\ -2.8 \\ -1.8 \\1 \\ -1.6 \end{array}$	40 34 35.84 40 42 20.46 40 37 47.91 40 32 47.38 40 33 26.62	$ \begin{array}{r} -555.24 \\ -123.65 \\ +336.17 \end{array} $	$\begin{vmatrix} + & 6 \\ + & 2 \\ - & 4 \end{vmatrix}$	$egin{bmatrix} -&24 \\ -&41 \\ -&39 \\ +&26 \\ -&68 \\ \hline \end{smallmatrix}$	$     \begin{array}{r}       + 4 \\       -10 \\       - 3 \\       + 7 \\       + 5     \end{array} $	6	23.00 [24.83] 23.93 23.91 23.13	
Dec. 31		7 8 9 10 1	$\mathbf{R}$	25.7943 23.6317 22.7480 8.9723 i 13.7370	9.9383 16.9030 17.3887 30.8243iv 28.9680	<u> </u>	$\begin{vmatrix} -1.5 \\ +1.9 \end{vmatrix}$	$ \begin{array}{c c} .0 \\3 \\ +1.8 \\ -1.2 \\5 \end{array} $	40 38 28.51	$egin{array}{c} + \ 2\ 50.18 \\ - \ 2\ 15.53 \\ + \ 9\ 12.56 \end{array}$	$egin{array}{c} - & 3 \\ + & 2 \\ +1.15 \end{array}$	$ \begin{array}{r} + & 8 \\ - & 28 \\ + & 53 \\ - & 23 \\ - & 13 \end{array} $	$     \begin{array}{r}       -12 \\       +5 \\       -4 \\       +20 \\       -13     \end{array} $	6 7 9	24.64 22.88 [13.56] 23.58 23.42	12.5 11.6 12.5 19.9
		2 3 4 5 6		18.6120 12.8343 23.4330 23.3743 15.4587	22.8310 26.9697 20.0983 14.8313 22.4487	$     \begin{array}{r}       + 26 \\       - 14 \\       + 52 \\       - 66 \\       - 64     \end{array} $	$\begin{array}{c} -2.2 \\ + .5 \\ -1.9 \end{array}$	—1.8 — .1	40 34 36.26 40 42 20.91 40 37 48.34 40 32 47.80 40 33 27.05	$ \begin{array}{r} -557.40 \\ -124.46 \\ +335.86 \end{array} $	$\begin{vmatrix} + & 6 \\ + & 2 \\ - & 4 \end{vmatrix}$	$ \begin{vmatrix} + & 66 \\ - & 58 \\ + & 6 \\ - & 32 \\ 0 \end{vmatrix} $	—10 — 3	6	23.78 22.95 24.00 23.44 23.72	18.5
1895 Jan. 1	I	7 8 9 10 1	D	12.3710 15.7540 16.2697 32.4810 <sup>iv</sup> 27.3300	28.2320 22.4727 21.2537 10.6620 <sup>11</sup> 12.0493	$     \begin{array}{r}       + 41 \\       - 53 \\       - 56 \\       + 26 \\       - 41     \end{array} $	$+ .6 \\9$	3	40 33 33.29 40 38 28.88 40 27 10.14	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} - & 3 \\ + & 2 \\ +1.15 \end{array}$	$egin{bmatrix} -&19\\+&17\\-&18\\-&4\\+&10 \end{smallmatrix}$	$+ \frac{5}{4}$	6 7 9	23.80 23.30 22.86 23.34 23.08	18.6 18.6 18.6 19.6
		2 3 4 5 6		17.3180 26.7593 17.8997 15.0610 23.1087	13.0863 12.5883 21.2520 23.6130 16.1227	- 40 - 13	+1.1 + .7	$\begin{vmatrix} + .9 \\7 \\ + .2 \end{vmatrix}$		-558.24 $-124.74$ $+336.13$	$\begin{vmatrix} + & 6 \\ + & 2 \\ - & 4 \end{vmatrix}$	$egin{bmatrix} -&69 \\ +&55 \\ +&8 \\ +&13 \\ -&15 \\ \end{matrix}$	-3 + 7	$\begin{array}{ c c } 6 \\ 7 \\ 7 \end{array}$	22.31 23.38 23.85 24.26 23.71	19.9
Jan. 4	I	7 8 9 10 1	$\mathbf{R}$	26.6927 22.4273 21.8467 7.9410 1 12.7233	10.8273 15.7037 16.8377 129.7537iv 28.0137	-56 $-30$ $-31$	$ \begin{array}{c c}                                    $	$\begin{vmatrix}5 \\ + .1 \\ + .3 \end{vmatrix}$	40 43 5.29 40 33 33.41 40 38 28.99 40 27 10.25 40 42 49.52	$ \begin{array}{r} + 249.88 \\ - 26.59 \\ + 911.50 \end{array} $	$egin{array}{ccc} -& 3 \\ +& 2 \\ +1.15 \end{array}$	$\begin{array}{ c c c c c } - & 27 \\ - & 32 \\ + & 3 \\ + & 10 \\ + & 22 \end{array}$	$+ 5 \\ - 4$	6 7 9	24.29 23.05 22.48 23.29 22.99	19.7 19.2 19.1 16.9
		2 3 4 5 6		20.9373 12.8260 22.1183 25.2397 15.9023	25.1270 26.9897 18.7570 16.7280 22.8207	-12 + 12 + 72	$egin{array}{l}6 \\8 \\5 \\ +.2 \\ +5.8 \\ \hline \end{array}$	-1.4	40 34 36.64 40 42 21.34 40 37 48.72 40 32 48.20 40 33 27.48	-558.12 $-125.03$	$\begin{array}{c c} + & 6 \\ + & 2 \end{array}$	$\begin{array}{r r} - & 30 \\ - & 18 \\ - & 32 \\ + & 17 \\ + 1.62 \end{array}$	$-10 \\ -3 \\ +7$	6 7 7	22.67 23.06 23.43 23.89 24.03	17.4

<sup>\*</sup> Definition this evening very poor; work not satisfactory.

	\		_				Let	els.			Correct	ions.				The
1895.	St	ar.	P	Micro	meter.	<i>o</i>	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mon
an. 4 an. 11		7 8 9 10 1		12.0480 16.6873 17.9463 32.8960iv 28.1667	27.9453 23.3590 22.9763 11.1133 ii 12.8743	$egin{array}{c} 0 \\ + & 1 \\ + & 21 \\ + & 33 \\ + & 68 \\ \hline \end{array}$	$\begin{array}{ c c c c } + .9 \\1 \\3 \end{array}$	$\left  { +  .3 \atop +  .1 \atop +  .3 \atop +  .7 \atop -  .8 } \right $	40 33 33.68	$\begin{array}{r} - & 6 & 41.99 \\ + & 2 & 48.71 \\ - & 2 & 7.25 \\ + & 9 & 10.90 \\ - & 6 & 26.87 \end{array}$	$\frac{\cdot}{+}$ 3	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$+ 5 \\ - 4$	6 7 9	40 36 23.48 22.63 22.06 22.78 23.12	16.6 16.5 34.4
		2 3 4 5 6		22.0477 27.6940 17.7473 15.6443 21.6757	17.8537 13.4890 21.1730 24.1290 14.7347	$ \begin{array}{r}  -3 \\  +75 \\  -17 \\  -7 \\  -128 \end{array} $	$+3.1 \\ +1.2 \\ .0$	$ \begin{array}{c c}2 \\ +1.7 \\ +.2 \\ .0 \\ .0 \end{array} $	40 34 37.29 40 42 22.07 40 37 49.40 40 32 48.85 40 33 28.15	+ 146.05  - 559.39  - 126.58  + 334.53  + 255.24	$\begin{vmatrix} \dot{+} & 2 \\ - & 4 \end{vmatrix}$	$egin{bmatrix} -&26 \\ +&71 \\ +&22 \\ -&13 \\ \hline \end{pmatrix}$	$-10 \\ -3 \\ +7$	9 6 7 7 6	23.19 23.41 23.10 23.48 23.34	34. 34.
an. 14	I	7 8 9 10 2	$\mathbf{R}$	27.6503 23.4493 22.6323 9.0183 ii 17.3153	11.7157 16.7647 17.6030 30.7967iv 21.4750	$+\ 5 \\ +\ 5$	+1.1	$\left  { \begin{array}{c} + \ .7 \\ + \ .3 \\ +1.9 \\ + \ .7 \\ .0 \end{array}} \right $	40 38 29.79	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} - & 3 \\ + & 2 \\ +1.08 \end{vmatrix}$	$egin{bmatrix} -&19\ -&5\ +&42\ +&26\ +&9 \end{bmatrix}$	$+5 \\ -4 \\ +20$	6 7 9	23.17 23.34 23.07 23.26 23.02	33. 33. 23.
		4 5 7 8 9		22.3587 23.5180 13.4530 16.3900 17.2883	18.9407 15.0660 29.3813 23.0763 22.3177	$egin{pmatrix} +& 21 \\ -& 52 \\ +197 \\ -& 17 \\ -& 9 \end{smallmatrix}$	$\begin{bmatrix}7 \\ -1.5 \end{bmatrix}$	$\begin{vmatrix} + .8 \\ + .8 \end{vmatrix}$	40 32 49.28 40 43 6.58 40 33 34.70	-643.27 + 249.03	$\begin{array}{c c} - & 4 \\ + & 7 \\ - & 3 \end{array}$	+ 30 - 1 - 14 - 5 - 37	$^{+7}_{-12}_{+5}$	7 7 6	23.70 22.96 23.19 23.76 22.73	22
an. 16	I	10 1 2 3 4	D	30.3397iv 27.7560 22.0300 28.0220 16.3370	8.5730 ii 12.4147 17.8737 13.7917 19.7907	$+10 \\ -2 \\ +111$			40 42 50.79 40 34 37.86 40 42 22.61	$egin{bmatrix} -6&27.96 \ +1&45.09 \ -6&0.12 \end{matrix}$	$\begin{vmatrix} + & 7 \\ - & 2 \\ + & 6 \end{vmatrix}$	$egin{bmatrix} 0 \\ + & 41 \\ - & 8 \\ + & 45 \\ + & 8 \end{bmatrix}$	$ \begin{array}{c c} -13 \\ + 4 \\ -10 \end{array} $	8 9 6	23.06 23.26 22.98 22.96 22.82	22 31 31 31
		5 6 7 8 9		17.3683 22.4147 26.7190 22.4483 22.5500	25.8183 15.5040 10.7427 15.8057 17.4913	+116 $-64$ $-181$ $-51$ $+1$	$+1.5 \\ -0.5$	+ .2	40 33 28.84 40 43 6.82 40 33 34.94	$egin{array}{c} + \ 2\ 54.59 \\ - \ 6\ 43.58 \\ + \ 2\ 47.84 \end{array}$	$\begin{vmatrix} -&3\\+&7\\-&3\end{vmatrix}$	$\begin{vmatrix} - & 1 \\ + & 48 \\ - & 5 \end{vmatrix}$	-12 + 5	6 7 6	23.69 23.50 23.79 22.81 23.15	30
an. 19		10 1 2 3 4	R	8.6340 i 10.7857 18.1623 13.0197 21.0013	30.3773iv 26.1690 22.3303 27.2393 17.5693	-206 + 206		$\begin{vmatrix} + .9 \\ -3.3 \\7 \end{vmatrix}$	40 42 50.98 40 34 38.10 40 42 22.97	$ \begin{array}{r} -628.47\\ +145.42\\ -559.61 \end{array} $	$\begin{vmatrix} + & 7 \\ - & 2 \\ + & 6 \end{vmatrix}$	- 79 - 57	$\begin{vmatrix} -18 \\ + 4 \\ -10 \end{vmatrix}$	8   8   9   6	22.84 22.81	21
		5 6 7 8		24.7470 17.0123 12.6543 16.5393 18.5667	16.2933 23.9127 28.6260 23.1927 23.5733	+ 38 + 28 + 89 - 10 + 48	$\begin{vmatrix} + .8 \\4 \end{vmatrix}$	$\begin{vmatrix}1 \\ +2.1 \end{vmatrix}$	40 33 29.09	+254.56 $-644.16$	$\begin{vmatrix} 3 & - & 3 \\ 2 & - & 3 \\ - & 3 \end{vmatrix}$	+ 11 + 20 - 1	$\begin{vmatrix} + & 5 \\ -12 \\ + & 5 \end{vmatrix}$	6   6 6   7 6   6	23.84 23.10 23.47	2
an. 23	I	10 1 2 3 4	D	31.3033 <sup>i</sup> 28.1487 19.9607 27.9597 17.0320	9.5243 12.8023 15.8017 13.7597 20.4847	+10	$egin{array}{c c} 4 & -2.2 \\ +1.4 \\ 8 & -1.1 \\ 7 & + .8 \\ 6 & -1.5 \\ \hline \end{array}$	7	40 27 11.78 40 42 51.29 40 34 38.42 40 42 23.32 40 37 50.68	$\begin{vmatrix} + & 1 & 44.9 \\ - & 5 & 59.3 \end{vmatrix}$	$\begin{vmatrix} - & 2 \\ 4 & - & 6 \end{vmatrix}$	+ 1	$egin{array}{c c} 2 & -18 \ 7 & +40 \ 4 & -10 \ \end{array}$	8 0 9 0 6	23.31 23.69 24.04	2
		5 7 8	<b>3</b>	15.8827 23.9107 27.4107 21.6423 22.2260	24.3203 17.0240 11.4513 14.9897 17.1660	8	$egin{array}{c} 8 & + .78 \\ 8 &60 \\ 0 &28 \\ 8 & -3.1 \\ 5 & + .5 \end{array}$	1 + .1	40 33 29.46 40 43 7.41 40 33 35.54	$\begin{vmatrix} + & 2 & 54.2 \\ - & 6 & 43.3 \\ + & 2 & 47.9 \end{vmatrix}$	$egin{array}{c c} 1 & - & 3 \\ 6 & + & 7 \\ 7 & - & 3 \end{array}$		4 + 1 9 + 1 2 -11 9 + 1	5 6 2 7 5 6	23.66 24.05 23.00	$\begin{bmatrix} 2 \\ 2 \\ 2 \end{bmatrix}$
Jan 24	·	6	R	9.3280 12.8830 19.4427 12.4887 22.7650	31.0920 <sup>3</sup> 28.2007 23.5967 26.7293 19.3170	$+ 5 \\ - 4$	$egin{array}{c c} 1 & - & .4 \\ 4 & + & .1 \\ 6 & -1.7 \\ 8 & -1.6 \\ 0 & +1.1 \\ \hline \end{array}$	$\begin{bmatrix} -2.5 \\ -2.5 \end{bmatrix}$	40 27 12.02 3 40 42 51.40 3 40 34 38.54 40 42 23.44 40 37 50.70	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{c cccc} 2 & + & 7 \ 8 & - & 2 \ + & 6 \end{array}$	-	$egin{array}{c c} 1 & +2 \\ 8 & -1 \\ 7 & + \\ 6 & -1 \\ \hline \end{array}$	$egin{array}{c c} 3 & 8 \ 4 & 9 \ 0 & 6 \ \end{array}$	3 23.82 23.26 3 23.28	3   13 3

1005	6	lar.	r	11:		C .	Ler	els.	1/2   2/		Correct	ions.			Latitude.	Ther,
1895.	S	tar.	P	Micro	meter.	C	A	В	$\frac{1}{2}(\delta + \delta')$	Micrometer.	δ	ı	r	Mer	Lanuae.	mom.
Jan. 24	I	5 6 7 8 9		23.9523 13.9720 12.9543 15.0560 17.9413	16.5090 20.9187 28.9067 21.6917 23.0197	$egin{array}{c} + 13 \\ -156 \\ +129 \\ - 95 \\ - 21 \\ \hline \end{array}$	$ -4.1 \\ -1.2$	$ \begin{array}{r} -1.1 \\ -4.7 \\ + .6 \\ +1.0 \\ + .6 \end{array} $	0 / // 40 32 50.20 40 33 29.59 40 43 7.53 40 33 35.67 40 38 31.14	$     \begin{array}{r}       + 255.26 \\       - 643.71 \\       + 247.56     \end{array} $	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{cccc} -&62 \ -1.26 \ -&12 \ +&22 \ -&2 \end{array}$	$   \begin{array}{r}     +7 \\     +5 \\     -12 \\     +5 \\     -4   \end{array} $	7 6 7 6 7	36 23.22 23.67 23.72 23.53 22.81	18.5 18.4
Jan. 27	I	10 1 2 3 4	D	31.8540iv 28.6000 23.1777 32.6637 18.9573	10.1080 ii 13.2353 19.0533 18.4813 22.4080	$     \begin{array}{r}       + 15 \\       + 124 \\       + 40 \\       + 690 \\       + 22     \end{array} $	$ \begin{array}{c c}6 \\3 \\0 \end{array} $	$\begin{bmatrix}7 \\2 \\ .0 \\9 \\2 \end{bmatrix}$	40 27 12.14 40 42 51.78 40 34 38.92 40 42 23.87 40 37 51.18	$\begin{array}{rrrr} - & 6 & 28.84 \\ + & 1 & 44.39 \\ - & 6 & 0.37 \end{array}$	$\begin{vmatrix} +1.01 \\ + & 9 \\ - & 2 \\ + & 9 \\ + & 2 \end{vmatrix}$	$\begin{array}{c c} - & 33 \\ - & 12 \\ - & 5 \\ - & 11 \\ + & 4 \end{array}$	$^{+20}_{-13}$ $^{+4}_{-10}$ $^{-3}$	9 8 9 6 7	23.03 22.86 23.37 23.44 23.97	18.3 23.6 23.1
		5 6 7 8 9		15.1823 22.8593 26.0500 22.5777 21.4150	23.5960 16.0010 10.0343 15.9770 16.3247	— 53 — 34 —275 — 40 — 53	$\begin{vmatrix} + .6 \\ + .3 \\ -1.2 \end{vmatrix}$	$\left  { \begin{array}{c} + \ .6 \\ + \ .9 \\ + \ .4 \\ - \ .1 \\ + 1.1 \end{array}} \right $	40 32 50.63 40 33 30.04 40 43 7.97 40 33 36.12 40 38 31.58	+253.34 $-644.29$	$\begin{vmatrix} + & 10 \\ - & 4 \end{vmatrix}$	$ \begin{array}{r} + 12 \\ + 21 \\ + 10 \\ - 21 \\ + 28 \end{array} $	$     \begin{array}{r}       + 7 \\       + 5 \\       -13 \\       + 5 \\       - 4     \end{array} $	6	23.46 23.66 23.82 22.79 23.33	23.1
	IJ	10 1 2 3 4	D	8.2177 ii 15.8943 21.5067 21.0307 19.9253	29.9533 <sup>iv</sup> 21.5843 17.1023 17.8680 18.4800	— 14 — 64 — 28 — 16 — 11	$\begin{bmatrix}7 \\3 \\2 \end{bmatrix}$	$ \begin{array}{c c}5 \\ .0 \\ -1.5 \\ + .6 \\ .0 \end{array} $	40 27 12.55 40 38 47.07 40 38 15.13 40 35 3.66 40 36 59.48		$\begin{vmatrix} + & 3 \\ - & 2 \end{vmatrix}$	$egin{bmatrix} - & 3 \\ - & 11 \\ - & 24 \\ + & 4 \\ 0 \end{bmatrix}$	$     \begin{array}{r}       +20 \\       -4 \\       -3 \\       +3 \\       -1     \end{array} $	6	23.38 23.30 23.65 23.70 23.03	22.9 19.2 19.5 19.2
Jan. 29	I	5 6 7 8 1		17.9253 32.1860 <sup>iv</sup> 15.0667 7.9793 <sup>ii</sup> 10.7350	26,2270	$ \dotplus$ 63	$\begin{array}{c c}9 \\7 \\ +.5 \end{array}$	$egin{array}{c} + .4 \\ -1.1 \\1 \\ +2.2 \\ +1.2 \end{array}$	40 36 15.19 40 45 47.03 40 41 5.03 40 27 21.90 40 42 51.97	-922.40 $-442.37$	$\begin{vmatrix} + & 7 \\ + & 98 \end{vmatrix}$	$ \begin{array}{r} + & 11 \\ - & 28 \\ - & 12 \\ + & 36 \\ + & 31 \end{array} $	$egin{array}{c} 0 \\ -16 \\ -8 \\ +18 \\ -13 \end{array}$	8	23.61 23.28 22.59 23.77 23.07	19.0 19.4 20.1
Jan. 31	Ι	2 1 2 3 4	R	17.1220 12.0117 21.4953 12.3113 22.5010	21.2527 27.4050 25.5917 26.5757 19.0627	- 31 - 39 +128 - 69 + 24	$\begin{array}{c} +2.0 \\ -2.0 \\ -2.0 \end{array}$	$egin{array}{c} -1.1 \\ + .9 \\6 \\6 \\ -2.6 \end{array}$	40 34 39.13 40 42 52.09 40 34 39.26 40 42 24.26 40 37 51.57	6 29,15	$\begin{vmatrix} \dot{-} & 2 \\ + & 9 \end{vmatrix}$	- 22 + 43 - 10 - 39 - 57	$egin{array}{c} + 4 \\ -13 \\ + 4 \\ -10 \\ - 3 \\ \hline \end{array}$	8 9 6	23.39 23.41 23.18 23.39 24.06	15.5
		5 6 7 8 9		23.6550 17.6210 11.8893 16.4380 17.6633	15.2493 24.4347 27.8960 23.0180 22.7730	- 39 + 60 - 14 - 16 + 10	$\begin{array}{c c} +2.4 \\4 \\ +1.1 \end{array}$	$egin{array}{c} + .2 \\ +1.9 \\ + .6 \\ + .6 \\8 \end{array}$	40 32 51.04 40 33 30.49 40 43 8.41 40 33 36.61 40 38 32.06	+252.45	$\begin{vmatrix} - & 4 \\ + & 10 \\ - & 4 \end{vmatrix}$	$egin{bmatrix} + & 1 \\ + & 63 \\ + & 1 \\ + & 28 \\ + & 3 \end{bmatrix}$	$     \begin{array}{r}       + 7 \\       + 5 \\       \hline       -13 \\       + 5 \\       \hline       - 4     \end{array} $	6	23.57 23.64 23.74 23.30 22.92	16. 16. 15.
	11	10 I 1 2 3 4	R	30.3100 <sup>iv</sup> 22.4637 15.8703 18.4393 21.8863	8.5940 <sup>18</sup> 16.7440 20.3123 21.6007 23.3047	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} + .6 \\ +2.8 \\ +1.2 \end{array}$	$\left  egin{array}{l} + .6 \\ + .2 \\ +2.3 \\ +1.2 \\ + .8 \end{array} \right $	40 27 13.01 40 38 46.80 40 38 14.82 40 35 3.29 40 36 59.09	$\begin{array}{c} + \ 9 \ 9.11 \\ - \ 2 \ 24.58 \\ - \ 1 \ 52.14 \\ + \ 1 \ 19.94 \\ - \ 35.95 \end{array}$	$\begin{vmatrix} + & 4 \\ + & 3 \\ - & 2 \end{vmatrix}$	$egin{bmatrix} 0 \\ + & 12 \\ + & 74 \\ + & 35 \\ + & 5 \end{bmatrix}$		6	23,39 22,40 23,48 23,65 23,26	16.8 10.1 10.'
(Z) _ 1 <sub>0</sub>		5 6 7 8 9		21.4587 9.4237 ii 25.6877 30.5783iv 22.2980	21.7863 31.5883iv 14.5387 9.2253 ii 18.3067	+ 9	$\begin{array}{c c} -2.5 \\ +.7 \\ +1.0 \end{array}$	$\begin{vmatrix} -3.1 \\ + .6 \\ +2.3 \end{vmatrix}$	40 41 4.47 40 27 21.36	$\begin{array}{c} - 920.49 \\ - 441.94 \\ + 859.95 \end{array}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$egin{bmatrix} - & 6 \ - & 79 \ + & 18 \ + & 45 \ + & 2 \ \end{pmatrix}$	+18	6	23.08 24.19 22.76 23.00 24.09	10.0
Feb 2	Ι	1 2 3 4 5		27.6977 20.6353 26.3453 15.9030 17.9807	12.3043 16.5093 12.0487 19.3763 26.3413	- 53 - 99 - 72	$ \begin{array}{c c} +1.5 \\6 \\ +1.9 \\ -2.3 \\ +2.2 \end{array} $	$\begin{vmatrix} + .9 \\6 \\ .0 \\ -2.0 \\ +1.7 \end{vmatrix}$	40 34 39.36 40 42 24.37	+ 144.20 $- 6 1.26$ $- 127.65$	$\begin{vmatrix} - & 2 \\ + & 9 \\ + & 2 \end{vmatrix}$	$egin{pmatrix} + & 35 \\ - & 17 \\ + & 30 \\ - & 62 \\ + & 57 \end{bmatrix}$	$     \begin{array}{r}       -13 \\       +4 \\       -10 \\       -3 \\       +7     \end{array} $	9 6 7	23.31 23.50 23.46 23.48 23.64	18.5 17.5 17.4
		6 7 8 9 10		23.3257 25.2257 22.5727 21.1257 7.8630 ii	16.4673 9.1673 15.9643 15.9870 29.5847iv	-395 - 42 - 67	$ \begin{array}{c c} -3.3 \\ -3.3 \\ -3.8 \\ -3.8 \\ -3.7 \end{array} $	$\begin{vmatrix}7 \\2 \end{vmatrix}$	40 38 32.22	$\begin{array}{r} -645.07 \\ +247.00 \\ -29.77 \end{array}$	$\begin{vmatrix} + & 10 \\ - & 4 \\ + & 3 \end{vmatrix}$	$\begin{vmatrix} - & 72 \\ + & 14 \\ - & 22 \\ - & 5 \\ - & 36 \end{vmatrix}$	+5	$\begin{bmatrix} 7 \\ 6 \\ 7 \end{bmatrix}$	23.39 23.66 23.61 22.46 23.29	16.0 16.0

400-		Ī					Let	vels.			Correct	ions.			T	Ther
1895.	Ste	ır.	P	Micro	meter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom.
Feb. 2	II	1 2 3 4 6	D	12.2620 21.6283 21.3300 20.6430 32.3313 <sup>tv</sup>	17.9823 17.2390 18.1550 19.2583 10.1273 ii	$     \begin{array}{r}       -246 \\       -24 \\       -8 \\       -1 \\       +24     \end{array} $	$\begin{vmatrix} -1.2 \\ -1.7 \\ -1.2 \end{vmatrix}$	$\begin{vmatrix} +1.1 \\7 \\ -1.2 \\ .0 \\ +.6 \end{vmatrix}$	40 38 46.67 40 38 14.68 40 35 3.12 40 36 58.91 40 45 46.33	$\begin{array}{r} - & 2 & 24.03 \\ - & 1 & 50.93 \\ + & 1 & 20.27 \\ - & & 35.01 \\ - & 9 & 21.53 \end{array}$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	+ 33 - 28 - 43 - 19 + 30	- 4 - 3 + 3 - 1 -16	$\begin{bmatrix} 6 \\ 6 \\ 6 \\ 7 \\ 6 \end{bmatrix}$	40 36 23.03 23.53 23.03 23.78 24.03	11.4 11.5 11.4
Mar. 3	I	7 8 9 10 1	${f R}$	12.8067 11.9183 ii 18.5373 13.3250 12.2473	23.9533 33.3260iv 22.4990 29.8420 27.6790	$     \begin{array}{r}       -159 \\       +32 \\       +18 \\       +228 \\       -4     \end{array} $	-2.4 6	-1.2 -1.9 8 -2.6 -1.0	40 41 4.23 40 27 21.12 40 34 42.81 40 29 26.74 40 42 53.57	$\begin{array}{r} -441.46 \\ +91.41 \\ +140.22 \\ +658.24 \\ -630.21 \end{array}$	$\begin{vmatrix} + & 7 \\ + & 98 \\ - & 2 \\ - & 10 \\ + & 9 \end{vmatrix}$	- 59 - 63 - 19 - 53 - 3	$     \begin{array}{r}       -8 \\       +18 \\       +3 \\       +12 \\       -13     \end{array} $	6 8 6 5 8	22.23 23.14 22.91 [24.52] 23.37	9.9 36.8
		2 3 4 5 6		18.6880 12.5803 22.3317 24.4600 15.5470	22.7387 26.9643 18.7803 16.1720 22.3117	$     \begin{array}{r}       + 25 \\       - 28 \\       + 17 \\       + 23 \\       - 65     \end{array} $	$\left  { \begin{array}{c}7 \\ +1.4 \\ +.7 \end{array}} \right $	$ \begin{vmatrix} -1.4 \\ + .4 \\ + .4 \\ +1.7 \\8 \end{vmatrix} $	40 34 41.01 40 42 26.32 40 37 53.74 40 32 53.38 40 33 33.12	$\begin{array}{r} +\ 1\ 42.49 \\ -\ 6\ 3.65 \\ -\ 1\ 29.85 \\ +\ 3\ 29.63 \\ +\ 2\ 50.89 \end{array}$	$ \begin{array}{c cccc}  & 2 \\  & 9 \\  & 2 \\  & 5 \\  & & 4 \end{array} $	$ \begin{array}{r rrrr}  & 27 \\  & 6 \\  & 27 \\  & 33 \\  & 16 \end{array} $	$     \begin{array}{r}       + 4 \\       -10 \\       - 3 \\       + 7 \\       + 5     \end{array} $	9 6 7 7 6	23.34 22.66 24.22 23.43 23.92	36.6
Mar. 5	I	7 8 9 10 1	D	12.3530 16.4237 17.9977 32.6640iv 27.3560	28.4517 22.9050 23.2097 9.0860 ii 11.9300	$     \begin{array}{r}       + 55 \\       - 21 \\       + 28 \\       + 27 \\       - 47     \end{array} $	$\begin{vmatrix} + .4 \\ + .4 \\ + .2 \end{vmatrix}$	$\left  egin{array}{c} + .2 \\ + .4 \\ + .4 \\9 \\9 \end{array} \right $	40 43 11.05 40 33 39.63 40 38 35.12 40 27 15.90 40 42 53.60	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{vmatrix} + & 10 \\ - & 4 \\ + & 3 \\ + & 98 \\ + & 9 \end{vmatrix} $	- 17 + 11 + 11 + 14 - 8	$     \begin{array}{r}       -13 \\       +5 \\       -4 \\       +20 \\       -13     \end{array} $	7 6 7 9 8	23.70 23.65 23.42 23.02 23.61	36.4 35.9 35.3 27.3
		2 3 4 5 6		21.7860 27.8133 17.3173 15.3497 22.4010	17.7160 13.4457 20.9617 23.6647 15.6770	- 9 + 78 - 28 - 35 - 56		$egin{array}{c} -2.2 \\ +1.0 \\ -1.4 \\ + .2 \\ + .6 \end{array}$	40 34 41.06 40 42 26.39 40 37 53.82 40 32 53.46 40 33 33.22	$\begin{array}{c} +\ 1\ 42.89 \\ -\ 6\ 3\ 51 \\ -\ 1\ 32.08 \\ +\ 3\ 30.17 \\ +\ 2\ 49.89 \end{array}$	$egin{bmatrix} - & 9 \\ + & 2 \\ - & 5 \\ - & 4 \end{bmatrix}$	$ \begin{vmatrix} - & 82 \\ + & 59 \\ - & 39 \\ + & 13 \\ + & 7 \end{vmatrix} $	$   \begin{array}{r}     + 4 \\     -10 \\     - 3 \\     + 7 \\     + 5   \end{array} $	9 6 7 7 6	23.24 23.52 [21.41] ,23.85 23.25	27.0
	I	7 10 1 3 4	R	28.1730 8.8650 ii 12.5470 12.6267 23.3123	12.0843 30.4510 <sup>iv</sup> 28.0190 26.9953 19.7583	$     \begin{array}{r}       + 15 \\       - 3 \\       + 37 \\       - 26 \\       + 47     \end{array} $	+1.7	$egin{array}{c} .0\\ .0\\ +1.2\\ + .6\\ -1.5 \end{array}$	40 43 11.15 40 27 16.04 40 42 53.64 40 42 26.33 40 37 53.89	$\begin{array}{c} - & 6 & 46.87 \\ + & 9 & 5.83 \\ - & 6 & 31.33 \\ - & 6 & 3.27 \\ - & 1 & 29.99 \end{array}$	$\begin{array}{c c} + & 10 \\ + & 98 \\ + & 9 \\ + & 9 \\ + & 2 \end{array}$	$ \begin{array}{r} + 14 \\ + 17 \\ + 43 \\ + 2 \\ - 44 \end{array} $	$     \begin{array}{r}       -13 \\       +20 \\       -13 \\       -10 \\       -3     \end{array} $	7 9 8 6 7	24.46 23.31 22.78 23.13 23.52	26.7 26.7 34.9 34.8
Mar. 9	I	1 2 3 4 5	D	25.0603 21.6117 26.3027 14.8247 16.3457	9.5817 17.5830 11.9287 18.4367 24.6377	-362 $-16$ $-112$ $-106$ $+33$	$ \begin{array}{r} -1.0 \\ +1.5 \\ +1.2 \end{array} $	$ \begin{array}{c c}1 \\ -1.4 \\ +1.2 \\ +.6 \\ .0 \end{array} $	40 42 53.78 40 34 41.28 40 42 26.62 40 37 54.09 40 32 53.76	$\begin{array}{r} -630.49 \\ +141.83 \\ -63.19 \\ -131.07 \\ +329.76 \end{array}$	$egin{bmatrix} + & 9 \\ - & 2 \\ + & 9 \\ + & 2 \\ - & 5 \end{bmatrix}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$     \begin{array}{r}       -13 \\       +4 \\       -10 \\       -3 \\       +7     \end{array} $	8 9 6 7 7	23.30 22.88 23.87 23.35 23.69	32.4 32.6
		6 7 8 9 10		23.5247 27.8980 23.5583 22.3167 9.3283 ii	16.7937 11.7807 17.1097 17.0960 30.8897iv	$     \begin{array}{r}       + 9 \\       - 23 \\       + 19 \\       - 14 \\       + 1     \end{array} $	+ .4	$ \begin{array}{c c}8 \\1 \\ + .6 \\ + .5 \\7 \end{array} $	40 33 33.56 40 43 11.51 40 33 40.17 40 38 35.68 40 27 16.33	$ \begin{array}{r} -647.50 \\ +243.11 \\ -211.98 \end{array} $	$ \begin{vmatrix}  - & 4 \\  + & 10 \\  - & 4 \\  + & 3 \\  + & 98 \end{vmatrix} $	$ \begin{array}{c cccc}  & 39 \\  & 5 \\  & 7 \\  & 0 \\  & + & 8 \end{array} $	$     \begin{array}{r}       +5 \\       -13 \\       +5 \\       -4 \\       +19     \end{array} $	6 7 6 7 9	23.47 24.10 23.28 23.76 22.89	32.9 33.4
	I	1 2 3 4 6		11.4433 18.2213 12.5077 23.2097 18.6473	26.9020 22.2463 26.8867 19.6057 25.3220	$\begin{array}{r r} + & 8 \\ - & 40 \\ + & 43 \end{array}$	$ \begin{array}{r}1 \\ -1.2 \\ +.6 \\ +1.0 \\ +3.3 \end{array} $	$\begin{vmatrix} -1.0 \\ + .8 \\ + .2 \end{vmatrix}$	40 42 53.80 40 34 41.30 40 42 26.67 40 37 54.14 40 33 33.64	$+ 141.80 \\ - 6 3.50 \\ - 131.24$	$ \begin{array}{c cccc} + & 9 \\ - & 2 \\ + & 9 \\ + & 2 \\ - & 4 \end{array} $	+ 18	$     \begin{array}{r}       -13 \\       +4 \\       -10 \\       -3 \\       +5     \end{array} $	8 9 6 7 6	23.05 22.89 23.41 23.14 23.59	45.8 44.9 45.5
Mar. 14 16		2 3 4 1 2		24.6397 27.1607 17.1740 22.4267 17.2900	20.6043 12.7487 20.8133 16.6587 21.7560	$\begin{bmatrix} - & 7 \\ - & 33 \end{bmatrix}$	$\begin{array}{c} + .1 \\ +1.8 \\ -1.0 \\ + .5 \\ + .5 \end{array}$	$egin{pmatrix} + .2 \\ +1.8 \\ + .2 \\ + .9 \\ +1.5 \end{bmatrix}$	40 34 41.30 40 42 26.63 40 37 54.14 40 38 48 23 40 38 16.00	$\begin{array}{c} +\ 1\ 42.27 \\ -\ 6\ 4.41 \\ -\ 1\ 31.94 \\ -\ 2\ 25.79 \\ -\ 1\ 52.88 \end{array}$	$\begin{vmatrix} + & 2 \\ + & 4 \end{vmatrix}$	$egin{pmatrix} + & 4 \\ + & 52 \\ + & 18 \\ + & 19 \\ + & 27 \end{pmatrix}$	$   \begin{array}{r}     + 4 \\     -10 \\     - 3 \\     - 4 \\     - 3   \end{array} $	9 6 7 6 6	23.72 22.79 22.44 23.69 23.45	26.9 26.9 26.0
		3 4 5 6 7		18.6987 20.0117 22.0350 12.1123 ii 25.4823	21.8340 21.4213 22.3830 34.2917iv 14.3967	$   \begin{array}{r}     + & 6 \\     + & 8 \\     + & 63 \\     - & 4   \end{array} $	$egin{array}{c} +1.0 \\ -2.3 \\ +.7 \\ -1.3 \\ +.4 \end{array}$	$\begin{vmatrix} +1.2 \\5 \\ +.1 \\4 \\ -1.3 \end{vmatrix}$	40 35 3.81 40 36 59.17 40 36 14.36 40 45 46 06 40 41 3.31	$\begin{array}{cccc} - & 35\ 66 \\ + & 8.82 \end{array}$	$\begin{vmatrix} + & 1 \\ - & 0 \\ - & 97 \end{vmatrix}$	$ \begin{array}{r} + & 31 \\ - & 44 \\ + & 12 \\ - & 26 \\ - & 10 \end{array} $	$     \begin{array}{r}       + 3 \\       - 1 \\       0 \\       -16 \\       - 8     \end{array} $	6 7 8 6 6	23.49 23.14 23.38 23.73 22.95	25.9 25.6

<sup>\*</sup>Observation unsatisfactory. † Light bad; observation hurried.

100=	CV-	Ī	<u>,  </u>	10			Let	els.			Corre	ctions.				Ther
1895.	Star		P	Micro	meter.		A	В	$\frac{1}{2}(\delta + \delta')$	Micrometer.	δ	l	r	Mer	Latitude.	mom
Mar. 16 Mar. 17	1 I	9	R		9.0060 18.3803 11.5073 27.0033 17.7350	$ \begin{array}{r} - 2 \\ + 14 \\ - 31 \\ - 7 \\ - 15 \end{array} $	$-2.3 \\ +1.4$	$ \begin{array}{r}6 \\8 \\ -1.5 \\ +1.6 \\ +.5 \end{array} $	0 / 1/3 40 27 19.88 40 34 41.25 40 29 24.64 40 42 26.60 40 37 54.13	$ \begin{array}{r} + 9 & 2.54 \\ + 1 & 42.31 \\ + 6 & 58.92 \\ - 6 & 3.77 \\ - 1 & 31.13 \end{array} $	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{r r} - & 23 \\ - & 56 \\ + & 43 \end{array} $	+18 + 3 + 12 - 10 - 3	8 6 6 6 7	0 36 23.31 23.40 23.08 23.31 23.43	26.0 25.9 33.5
		5 6 7 8 9		17.2957 11.8850 17.2843	16.5123 23.9987 28.0240 23.7133 22.2447	$     \begin{array}{r}       + 45 \\       + 38 \\       - 8 \\       + 29 \\       - 17     \end{array} $	$ -1.0 \\ +1.3$	$ \begin{array}{c c}4 \\ +1.0 \\ .0 \\ +.5 \\ .0 \end{array} $	40 32 53.88 40 33 33.76 40 43 11.74 40 33 40.56 40 38 36.10	$ \begin{array}{r} + 24959 \\ - 648.08 \\ + 242.64 \end{array} $	$ \begin{array}{rrrr}  & 5 \\  & 4 \\  & + 10 \\  & & 4 \\  & + & 3 \end{array} $	$\begin{vmatrix} + & 16 \\ - & 16 \\ + & 27 \end{vmatrix}$	$     \begin{array}{r}       +7 \\       +5 \\       \hline       -13 \\       +5 \\       \hline       -4     \end{array} $	7 6 7 6 7	23.01 23.58 23.54 23.54 22.76	33.1 32.6 32.4
	11	0 1 2 3 4	D	31.6627iv 15.2007 21.4597 20.9570 23.4290	10.1143 ii 20.9533 17.0043 17.8377 21.9887	+ 11 97 30 17 + 35	+ .9    + .4    + .4	$egin{pmatrix} + & 5 \\ +1.0 \\ & .0 \\ + & .2 \\ + & .7 \end{bmatrix}$	40 27 16.88 40 38 49.36 40 38 16.13 40 35 3.94 40 36 59.28	2 25.22 - 1 52.59	$   \begin{array}{ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} + & 27 \\ + & 6 \\ + & 9 \end{vmatrix}$	$     \begin{array}{r}       +20 \\       -4 \\       -3 \\       +3 \\       -1     \end{array} $	9 6 6 6 7	23.04 23.47 23.66 22.93 23.07	31.8 28.6 28.8
		5 6 7 8 9		30.8943 <sup>iv</sup> 13.3703 8.3517 <sup>ij</sup>	20.6390 8.6570 ii 24.4960 29.7993 iv 22.2187	-101 $-11$	$+1.8 \\ +1.7 \\ +.8 \\ +2.1 \\ +1.7$	$egin{array}{c} +1.1 \\ +2.1 \\ +1.3 \\ .0 \\ +.3 \end{array}$	40 45 46.17   40 41 3.41   40 27 19.96	-922.30 $-441.08$ $+92.31$	$egin{bmatrix} - & 0 \ - & 97 \ + & 7 \ + & 98 \ - & 2 \ \end{pmatrix}$	$\begin{vmatrix} + & 54 \\ + & 29 \\ + & 33 \end{vmatrix}$	$egin{array}{c} 0 \\ -16 \\ -8 \\ +18 \\ +3 \end{array}$	6 6 8	22.59 23.34 22.67 23.84 23.78	28.9
Mar. 18		.0 3 4 5 6	D	11.8173 28.0747 16.9647 17.3750 23.7020	28.3390 13.7240 20.5643 25.6083 16.9940	$\begin{array}{c c} +112 \\ -37 \\ +107 \end{array}$	$egin{array}{c} +2.6 \\ +1.0 \\ + .7 \\ + .1 \\1 \end{array}$	$egin{array}{c} +1.8 \\ -1.1 \\ +0.9 \\ +0.6 \\ +1. \\ \end{array}$		$egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} + & 9 \\ + & 2 \\ - & 5 \end{vmatrix}$	$\begin{vmatrix} \dot{+} & 14 \\ + & 22 \\ + & 7 \end{vmatrix}$	10	6	23.25 23.62 23.49 22.51 23.53	30.2 38.5
		7 8 9 10 1		29.4277 23.1690 23.7880 9.2433 in 23.7623	13.3203 16.7407 18.5453 30.7753iv 18.0213	$\begin{bmatrix} - & 4 \\ + & 54 \\ 0 & 0 \end{bmatrix}$	<b>—</b> .6	$egin{array}{c}3 \\ + .2 \\7 \\ + .7 \\ + .2 \end{array}$	40 43 11.76 40 33 40.60 40 38 36.14 40 27 16.92 40 38 48.48	$ \begin{array}{r} + 242.54 \\ - 212.71 \\ + 94.47 \end{array} $	$\begin{vmatrix} + & 3 \\ + & 98 \end{vmatrix}$	$\begin{array}{c c} + & 8 \\ - & 5 \\ + & 46 \end{array}$		6 7 9	23.99 23.29 23.44 23.12 23.42	37.9 37.9 33.
		2 3 4 5 7		17.1533 19.3067 21.4093 21.4500 25.2077	21.6187 22.4300 22.8347 21.7903 14.1203	$egin{array}{c} -26 \\ +24 \\ +28 \\ +6 \\ -32 \\ \hline \end{array}$	$ \begin{array}{c c} +1.5 \\ -1.8 \\ + .6 \end{array} $	$egin{array}{c}3 \\ +1.8 \\6 \\ +.4 \\ +.1 \end{array}$	40 36 59.38 40 36 14.54	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} \dot{-} & 2 \\ + & 1 \\ - & 0 \end{vmatrix}$	$\begin{vmatrix} + & 47 \\ - & 36 \\ + & 14 \end{vmatrix}$	- 1 0	6 7 8	23.48 23.63 22.98 23.38 23.23	32. 32.
Mar. 19		8 9 10 3 4	R	32.0523 <sup>1</sup> v 20.4513 28.7230 12.0263 23.3787	10.6267 ii 16.4120 12.1987 26.4170 19.7793	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$  + .2 \\ + .4$	$egin{array}{c} +1.9 \\ + .6 \\ + .1 \\ + .8 \\ + .7 \end{array}$	40 34 41.41 40 29 24.80 40 42 26.54	$+\begin{array}{l} +142.00 \\ +658.01 \\ -63.64 \end{array}$	— 2   — 10   + 3	$\begin{vmatrix} + & 10 \\ + & 8 \\ + & 34 \end{vmatrix}$	$\begin{array}{c} +3 \\ +12 \\ -10 \end{array}$	6 6 6	23.52 23.58 22.97 23.29 23.41	31. 39. 39.
		5 6 7 8 9		25.6827 18.2350 11.7497 16.6220 18.0033	17.4147 24.9093 27.8927 23.0667 23.2800	-25 $-11$	+ .5	$egin{array}{c} + .3 \\ +1.7 \\ + .5 \\5 \\ +1.8 \end{array}$	40 33 40.65	$\begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\frac{ + }{- + }$	$\begin{vmatrix} + & 68 \\ + & 16 \\ - & 6 \end{vmatrix}$	$ \begin{vmatrix} +5 \\ -13 \\ +5 \end{vmatrix} $	6	23.23 23.57 23.87 23.60 23.29	
Mar. 21		10 5 6 7 8	D	31.7987 <sup>iv</sup> 15.1410 22.7027 27.9310 24.2203	10.2510 i 23.4293 16.0333 11.7730 17.8237	- 58 - 38 - 25	0.	$\left  egin{array}{c} + .4 \\2 \\ +2.3 \\ + .8 \\ +2.0 \end{array} \right $	40 32 53.96 40 33 33.92 40 43 11.92	<b>—</b> 6 48.52	+ 10	$ \begin{vmatrix} -2 \\ +58 \\ -13 \end{vmatrix} $	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	7 6 7	23.06 23.48 23.12 23.51 23.16	35.
	II 1	9 10 1 2 3	D	22.1357 8.7490 ii 16.7303 22.2537 22.3690	16.8437 30.27431 22.5320 17.7503 19.2720	— 24 — 21 — 21 — 28	$egin{array}{c} +1.1 \\ +2.5 \\ +.8 \\ +1.9 \\ +.3 \end{array}$	$\left  egin{array}{c} + .6 \\ +1.9 \\ +2.2 \\ +1.1 \\ +1.1 \end{array} \right $	40 38 48.87 40 38 16.63	+9 4.29 $-2$ 26.65 $-1$ 53.88	+ 98   + 4   + 8	$\begin{vmatrix} + & 64 \\ + & 41 \\ + & 44 \end{vmatrix}$	$\begin{array}{ c c c c } +19 \\ -4 \\ -3 \end{array}$	9 6 6	22.91 23.33 22.69 23.25 23.02	34. 28. 28.

<sup>\*</sup> Probably wrong star.

							Ler	vels.			Correct	ions.				The
895.	Ste	ar.	P	Microm	reter.	$\boldsymbol{c}$	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mon
[ar. 21	II	4 5 6 7 8	D	20.0230 31.0887iv	19.6970 8.8497 <sup>ii</sup> 25.0160	$-\begin{array}{cc} - & 1 \\ - & 2 \\ - & 53 \end{array}$	<b>—</b> .3	$\begin{vmatrix} +.8 \\ -1.1 \\ -1.2 \\ .0 \\ +.2 \end{vmatrix}$	0 / 1/ 40 36 59.67 40 36 14.80 40 45 46.56 40 41 3.75 40 27 20.24	$\begin{array}{r} - & 37.39 \\ + & 8.24 \\ - & 9 & 22.35 \\ - & 4 & 40.88 \\ + & 9 & 1.71 \end{array}$	$\begin{vmatrix} - & 0 \\ - & 97 \\ + & 7 \end{vmatrix}$	$\begin{vmatrix} + & 19 \\ - & 36 \\ - & 23 \\ - & 5 \\ - & 4 \end{vmatrix}$	$     \begin{array}{r}       -1 \\       0 \\       -16 \\       -8 \\       +18     \end{array} $	7 8 6 6 8	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	27. 27.
ar. 22	II	9 10 1 2 3	R	11.8230   2 22.4517   1 18.1573   2	22.1473 28.3453 16.6837 22.6370 28.7683	$+5 \\ +11 \\ -22 \\ +16 \\ +196$	+1.5  +1.3  +1.8	$ \begin{array}{c c} + .4 \\1 \\ +1.9 \\ +1.3 \\5 \end{array} $	40 34 41.62 40 29 25.00 40 38 49.03 40 38 16.78 40 35 4.54	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} - & 10 \\ + & 4 \\ + & 3 \end{vmatrix}$	+ 37 + 22 + 45 + 45 - 5	$     \begin{array}{r}       + 3 \\       + 12 \\       - 4 \\       - 3 \\       + 3     \end{array} $	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	23.23 23.12 23.74 23.97 22.56	27 31 31
		5 6 7 8 9		7.2643 ii 2 25.5847 30.6460 <sup>1</sup> v	20.2627 29.5137 <sup>iv</sup> 14.4873 9.2120 <sup>ii</sup> 18.6250	$\begin{array}{c c} -31 \\ + & 3 \end{array}$	2 -1.6	+1.7 $-0$ $-2$ $-5$ $+.7$	40 36 14.91 40 45 46.68 40 41 3.85 40 27 20.33 40 34 41.71	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} -1.01 \\ + & 7 \\ +1.02 \end{array}$	$\begin{vmatrix} + & 67 \\ - & 6 \\ - & 5 \\ - & 32 \\ + & 15 \end{vmatrix}$	$ \begin{array}{c c} 0 \\ -16 \\ -8 \\ +18 \\ +3 \end{array} $	6 8	22.96 22.97 23.23 23.28 23.62	31 30 30
ar. 23		10 6 7 8 9	R	17.9890   13.6073   17.9277   1	12,5127 24,6390 29,7520 24,3477 23 9640	+ 65	$     \begin{array}{r}     + .9 \\     +2.9 \\     +1.5 \\     + .8 \\     +1.4     \end{array} $	$ \begin{array}{r}3 \\ +2.1 \\ +1.6 \\ +1.5 \\ +.2 \end{array} $	40 29 25.08 40 33 34.04 40 43 12.03 40 33 40.96 40 38 36.51	+248.35 $-648.84$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$egin{pmatrix} + & 10 \\ + & 73 \\ + & 45 \\ + & 32 \\ + & 25 \end{bmatrix}$	$     \begin{array}{r}       +12 \\       +5 \\       -13 \\       +5 \\       -4     \end{array} $	$\begin{bmatrix} 6 \\ 7 \\ 6 \end{bmatrix}$	23.35 23.19 23.68 23.86 23.23	30 40 39 39
ar. 25		10 1 2 3 4	D	21.9073 21.0763	10.4970 <sup>11</sup> 23,1977 17.3787 18.0010 19.0217	+ 15		$ \begin{array}{c c}1 \\ +1.5 \\ .0 \\4 \\ +.2 \end{array} $	40 38 49.61	-226.86 $-154.48$	$\begin{vmatrix} + & 4 \\ + & 3 \\ - & 2 \end{vmatrix}$	$ \begin{array}{c cccc}  & 4 \\  & 44 \\  & 43 \\  & & 5 \\  & & 0 \end{array} $	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	6 6 6	23.14 23.25 22.96 22.83 23.36	39 40 40 39
		5 6 7 8 9		29.5543 <sup>iv</sup> 15.0333 8.2597 <sup>ii</sup>	20.0393 7.3140 <sup>ii</sup> 26.1467 29.6753 <sup>iv</sup> 25.4190	+ 56	7 $-1.8$ $.0$	$\begin{vmatrix} -1.9 \\ -3 \\ -1 \end{vmatrix}$	40 41 4.30 40 27 20.72	-922.31 $-441.16$ $+91.50$	$\begin{vmatrix} -1.06 \\ + \\ 7 \\ +1.07 \end{vmatrix}$	— 33 — 2	-8 + 18	6 6 8	23.21 23.35 22.86 23.53 23.67	39
ar. 28		10 1 2 3 4	R	23.4780 17.6227 19.4963	29,0053 17.6397 22.1960 22.5150 21.1740	$+ 29 \\ - 5$	$ +.9 \\ +2.7$	$ \begin{array}{r}2 \\ + .1 \\ +1.1 \\ +1.3 \\ +1.1 \end{array} $	40 38 18.02 40 35 5.72	$ \begin{array}{r} -227.70 \\ -155.63 \\ +116.40 \end{array} $	$\begin{vmatrix} + & 4 \\ + & 3 \\ - & 2 \end{vmatrix}$	$\begin{vmatrix} + & 8 \\ + & 28 \end{vmatrix}$	- 4 - 3 + 3	6 6 6	22.73 22.71 22.73 22.79 22.05	3:
	100000000000000000000000000000000000000	5 6 7 8 9		9.5123 <sup>ii</sup> 26.2230 32.2333 <sup>iv</sup>	15.0723	+62 + 18	4	$ +1.6 \\ + .1 \\ + .8$	40 41 4.87 40 27 21.23	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{vmatrix} -1.06 \\ + & 7 \\ +1.07 \end{vmatrix}$	$\begin{array}{c c} + & 19 \\ + & 15 \end{array}$	$-16 \\ -8 \\ +18$	6 6 8	22.37 22.92 22.99 23.02 23.46	3
pl. 10		10 1 2 3 4	D	18.3873 21.2993 20.4983	12.5137 23.3290 16.6307 17.5670 19.4480	14 36	$\begin{vmatrix} + .9 \\ +2.4 \\ +2.0 \end{vmatrix}$	+1.4  +2.5  +2.4	40 35 8.29	$ \begin{array}{r} -230.34 \\ -157.94 \\ +114.06 \end{array} $	$\begin{vmatrix} + & 6 \\ + & 5 \\ - & 3 \end{vmatrix}$	$egin{bmatrix} + & 32 \\ + & 70 \\ + & 62 \end{bmatrix}$	-3 + 3	6 6	22.91 22.94 23.49 23.03 22.84	3
		5 6 7 8 9		20.3713 31.2073iv 13.7890 8.3083 ii 14.4460	20.2027 8.8193 <sup>ii</sup> 25.0623 29.5890 <sup>iv</sup> 18.3273		$\begin{array}{c} +2.2 \\ +2.7 \\ +2.0 \\ +1.9 \\ +2.1 \end{array}$	+2.5	40 45 50.22 40 41 7.21 40 27 23 33	-926.12 $-444.91$ $+858.09$	$\begin{vmatrix} 2 & -97 \\ 1 & +12 \\ 9 & +98 \end{vmatrix}$	$\begin{vmatrix} + & 66 \\ + & 64 \\ + & 66 \end{vmatrix}$	$     \begin{array}{c c}                                    $	6 6 8	23.14 23.69 23.04 23.32 23.29	3
pl. 11		10 1 2 3 4	R	24.9387 17.1537 18.7727	28.5800 19.0023 21.7933 21.7333 22.3590	+108 $-28$	$ \begin{array}{c}     + .4 \\     + .2 \\    9 \\     + .3 \end{array} $	$  +1.8 \\  5$	40 38 53.12 40 38 20.89 40 35 8,53	$\begin{array}{c c} -230.37 \\ -157.26 \\ +114.88 \end{array}$	$\begin{vmatrix} 7 & + & 6 \\ 6 & + & 5 \\ 8 & - & 3 \end{vmatrix}$	$\begin{vmatrix} + & 26 \\ - & 6 \\ - & 23 \end{vmatrix}$	— 4   — 8   + 3	6 6 6	23.23 23.09 23.65 23.24 22.64	3

			_	l			1 .	Le	vels.			Corre	ctions.				//////////////////////////////////////
1895.	S	tar.	P		Micro	meter.	С	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r	Mer	Latitude.	Ther- mom.
Apl. 11	II	5 6 7 8 9		$26.9 \\ 32.5$	6497 <sup>ii</sup> 9000	21.7847 31.9193 15.6823 11.2733 18.7257	+126	$ \begin{array}{c c}  & -1.9 \\  &4 \\  & -1.0 \end{array} $	-1.5 -1.3 8 2 .0	40 36 18.34 40 45 50.45 40 41 7.45 40 27 23.54 40 34 45.07	-925.69 $-443.98$ $+858.32$	$\begin{vmatrix} - & 97 \\ + & 12 \\ + & 98 \end{vmatrix}$	$\begin{vmatrix} - & 47 \\ - & 16 \\ - & 18 \end{vmatrix}$	$0 \\ -16 \\ -8 \\ +18 \\ +3$	6 6	40 36 22.77 23.22 23.41 22.92 23.35	35.0
Apl. 14		10 1 2 3 4	D	17.9 22.7 18.6	533	14.3023 23.8813 18.0990 15.6957 20.8690	+49  +17	$egin{array}{c} + .5 \\ -1.2 \\ -1.6 \\ -2.4 \\ + .7 \end{array}$	$egin{array}{c} + .6 \\6 \\ -2.2 \\ -1.1 \\ + .8 \end{array}$	40 29 28.42 40 38 53.77 40 38 21.56 40 35 9.20 40 37 4.08	-229.99 $-157.74$	$\begin{vmatrix} + & 6 \\ + & 5 \\ - & 8 \end{vmatrix}$	$ \begin{array}{c c} -27 \\ -53 \\ -52 \end{array} $	$     \begin{array}{r}       +12 \\       -4 \\       -3 \\       +3 \\       -1     \end{array} $		23.11 23.59 23.37 23.21 23.29	35.0 43.5 42.7
		5 6 7 8 9		15.3	.033 <sup>iv</sup> 80 <b>9</b> 3 5440 <sup>ii</sup>	20.8250 8.7117 26.5577 29.8497 <sup>i</sup> 20.8213	+ 91	$\begin{vmatrix}7 \\6 \\ -2.2 \end{vmatrix}$	2 7 .0 5 2	40 36 18.94 40 45 51.12 41 41 8.11 40 27 24.14 40 34 45.72	- 9 26.20 - 4 44.67	$\begin{vmatrix} - & 97 \\ + & 12 \\ + & 98 \end{vmatrix}$	$\begin{vmatrix} - & 20 \\ - & 9 \\ - & 42 \end{vmatrix}$	$ \begin{array}{c} 0 \\ -16 \\ -8 \\ +18 \\ +3 \end{array} $	8 6 8 6	2 <b>2</b> .91 23.65 23.45 23.69 24.08	42.6
Apl. 15 Apl 18	11	$\frac{2}{3}$		11.9 24.5 17.1 19.1 17.4	263 363 570	28.3213 18.5713 21.8383 22.0747 23.4730	$     \begin{array}{r}       + 20 \\       + 81 \\       - 22 \\       + 16 \\       + 27     \end{array} $	$\begin{vmatrix} + .4 \\ + .5 \\ +2.0 \end{vmatrix}$	$ \begin{array}{r}3 \\ + .9 \\ + .8 \\ + .2 \\ + 1.0 \end{array} $	40 29 29.09 40 38 53.97 40 38 21.75 40 35 9.40 40 38 54.59	$egin{array}{c} + 653.72 \\ - 230.79 \\ - 158.84 \\ + 113.82 \\ - 231.64 \end{array}$	$\begin{vmatrix} + & 6 \\ + & 5 \\ - & 3 \end{vmatrix}$	$\begin{vmatrix} + & 21 \\ + & 18 \\ + & 34 \end{vmatrix}$	+12 $-4$ $-3$ $+3$ $-4$	6 6 6 6	22.99 23.47 23.17 23.62 23.25	42.6 43.1 42.6 44.4
		2 3 4 5 6		23.2 22.1 20.7 20.8 8.2	453 513 557	18.5763 19.2530 22.4147 21.0330 30.6890 <sup>t</sup>	$     \begin{array}{r}       + 39 \\       + 17 \\       + 23 \\       + 1 \\       - 11     \end{array} $	$\begin{array}{c c} +1.2 \\ -2.0 \\ -2.4 \end{array}$	$ \begin{array}{r}2 \\ + .3 \\6 \\ -2.3 \\ +2.5 \end{array} $	40 38 22.40 40 35 10 04 40 37 4.83 40 36 19.66 40 45 51.93	$\begin{array}{c} -158.91 \\ +113.18 \\ -42.12 \\ +4.49 \\ -927.40 \end{array}$		$\begin{array}{r r} + & 23 \\ - & 39 \\ - & 68 \end{array}$	$     \begin{array}{r}         -3 \\         +3 \\         -1 \\         0 \\         -16     \end{array} $	6 6 7 8 6	23.55 23.51 22.40 23.55 23.75	44.3 44.6
Apl. 19	II	7 8 9 10 1	R	26.2 33.6 22.4 29.2 22.9	620 <sup>iv</sup> 220 090	14.9513 12.4170 i 18.5810 12.8933 16.9717	$ \begin{array}{c} +60 \\ +34 \\ +17 \\ +149 \\ -2 \end{array} $	$\begin{array}{c c} +1.1 \\ -1.9 \\ -1.0 \end{array}$	$ \begin{array}{r} + .8 \\7 \\6 \\9 \\ + .3 \end{array} $	40 34 46.48	$\begin{array}{r} -446.09 \\ +857.30 \\ +137.17 \\ +652.95 \\ -231.72 \end{array}$	$ \begin{array}{ccccc} + & 12 \\ + & 98 \\ - & 4 \\ - & 17 \\ + & 6 \end{array} $	$\begin{vmatrix} + & 8 \\ - & 38 \\ - & 27 \end{vmatrix}$	$egin{array}{c} -8 \\ +18 \\ +3 \\ +12 \\ -4 \end{array}$	6 8 6 6	23.16 23.47 23.32 22.56 23.36	42.9 42.1 55.6
		2 3 4 5 6		18.0 18.5 20.9 20.3 30.3	833 577	22.8080 21.4753 19.2967 20.1617 7.9133	$\begin{array}{c c} & 0 \\ + & 1 \\ - & 0 \end{array}$	$\begin{bmatrix}6 \\8 \end{bmatrix}$	+ .9 $+3.1$ $+ .6$ $7$ $3$	40 37 5.06 40 36 19.87	$egin{array}{ccccc} -& 1 & 59.91 \\ +& 1 & 13.13 \\ -& 42.00 \\ +& 3.72 \\ -& 9 & 27.87 \end{array}$	$ \begin{array}{cccc} + & 5 \\ - & 3 \\ + & 2 \\ - & 0 \\ - & 97 \end{array} $	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$     \begin{array}{r}         -3 \\         +3 \\         -1 \\         0 \\         -16     \end{array} $	6 6 7 8 6	22.88 23.92 23.12 23.45 23.23	54.4 <i>c</i> 53.4
Apl. 20	II	7 8 9 10 1		15.10 8.17 17.00 12.33 16.77	767 <sup>ii</sup> 670 223	26,4753 29,4340iv 20,9057 28,6427 22,7653	$ \begin{array}{r} +81 \\ -12 \\ -33 \\ +68 \\ -13 \end{array} $	$\begin{vmatrix}7 \\ + .1 \\ +1.0 \end{vmatrix}$	.0 6 2 -1.9	40 34 46.69 40 29 30.08	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccc} + & 12 \\ + & 98 \\ - & 4 \\ - & 17 \\ + & 6 \end{array} $		$     \begin{array}{r}       -8 \\       +18 \\       +3 \\       +12 \\       -4     \end{array} $	6 8 6 6 6	22.97 23.68 23.66 23.08 23.13	53.3 53.0 45.2
		2 3 4 5 6	$_{ m R}^{ m D}$	22.53 21.38 19.64 21.40 8.55	860 467	17.8183 18.4987 21.3227 21.6057 30.9840 <sup>tv</sup>	$ \begin{array}{c c} + & 8 \\ - & 2 \\ + & 5 \\ + & 1 \\ - & 6 \end{array} $	2 2 4	<b>—</b> .3	40 35 10.52 40 37 5.29 40 36 20.09	$\begin{array}{c} -159.32 \\ +113.01 \\ -42.39 \\ +3.46 \\ -927.80 \end{array}$	$ \begin{array}{cccc} + & 5 \\ - & 3 \\ + & 2 \\ - & 0 \\ - & 97 \end{array} $	$\begin{vmatrix} - & 7 \\ - & 0 \end{vmatrix}$	$     \begin{array}{r}         -3 \\         +3 \\         -1 \\         0 \\         -16     \end{array} $	6 6 7 8 6	23.01 23.52 22.98 23.47 23.24	46.2 45.1
Apl. 21		7 8 9 10 1			120 640 <sup>iv</sup> 520 <b>4</b> 23	14.4667 11.3090 <sup>ii</sup> 20.7273 12.13 <b>30</b> 17.8707	+ 12  + 23  + 89  + 41	1.0	$ \begin{array}{r} .0 \\7 \\9 \\4 \\ + .2 \end{array} $	40 27 25.27 40 34 46.92 40 29 30.32	$\begin{array}{r} -446.92 \\ +857.53 \\ +136.94 \\ +652.51 \\ -232.24 \end{array}$	$\begin{array}{cccc} + & 12 \\ + & 98 \\ - & 4 \\ - & 17 \\ + & 6 \end{array}$	$ \begin{array}{ccccc} + & 5 \\ - & 26 \\ - & 37 \\ 0 \\ - & 7 \end{array} $	$     \begin{array}{r}       -8 \\       +18 \\       +3 \\       +12 \\       -4     \end{array} $	6 8 6 6 6	22.61 23.78 23.54 22.84 23.12	44.4 45.4 44.9 47.3
		3	R D	18.17 19.07 21.71 24.57 31.08	743 1 <b>5</b> 3	22.8960 21.9520 20.0293 24.4523 8.6297 <sup>11</sup>	$^{+}_{+}$ $^{12}_{4}$	-1.2	$\frac{+.4}{-1.4}$	40 35 10.79   40 37 5.54   40 36 20.34	- 42.66 $+$ 3.15	$ \begin{array}{cccc} + & 5 \\ - & 3 \\ + & 2 \\ - & 0 \\ - & 97 \end{array} $	$\begin{vmatrix} + & 2 \\ - & 37 \end{vmatrix}$	$ \begin{array}{c c}  & 3 \\  + & 3 \\  - & 1 \\  & 0 \\  - & 16 \end{array} $	6 6 7 8 6		47.8 47.4

		1				Let	vels.			Correc	ions.				/// au
1895.	Star.	P	Micro	ometer.	C	A	B	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	Ther- mom.
Apl. 23	II '	3 9 0	13.8827 9.2260 i 18.1303 12.5253 17.1100	26.2357 i 30.4457iv 21.9447 28.8113 23.1430	$ \begin{vmatrix} -43 \\ -1 \\ +1 \\ +93 \\ +6 \end{vmatrix} $	$\left  { +  .4 \atop -1.0} \atop +1.1 \right $		40 41 9.63 40 27 25.51 40 34 47.18 40 29 30.57 40 38 55.90	$\begin{array}{r} -446.97 \\ +856.57 \\ +136.46 \\ +652.06 \\ -232.57 \end{array}$	$\begin{vmatrix} + & 12 \\ + & 98 \\ - & 4 \\ - & 17 \\ + & 6 \end{vmatrix}$	$ \begin{array}{rrrr}     - & 52 \\     + & 8 \\     - & 27 \\     + & 22 \\     - & 31 \end{array} $		6 8 6 6 6	40 36 22.24 23.40 23.42 22.86 23.10	47.4 46.6 47.3
	4	D D D R R S S S S S S S S S S S S S S S	21.8953 22.5500 18.3003 21.3387 9.1953	17.1347 19.7070 20.0163 21.4420 i 31.6677iv	$ \begin{array}{r} -21 \\ +28 \\ -13 \\ +2 \\ +9 \end{array} $	$\begin{vmatrix} -2.0 \\ -1.2 \end{vmatrix}$	-1.4 2 1 -1.9 8	40 38 23.73 40 35 11.36 40 37 6.08 40 36 20.85 40 45 53.24	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$   \begin{array}{r}     + 5 \\     - 3 \\     + 2 \\     - 0 \\     -1.05   \end{array} $	$ \begin{array}{rrr}  & 21 \\  & 0 \\  & 33 \\  & 44 \\  & 3 \end{array} $	$ \begin{array}{r} -5 \\ +2 \\ -2 \\ 0 \\ -17 \end{array} $	6 6 7 8 6	23.25 23.37 22.46 23.11 23.77	46.1 45.4
May 1	10 II 1	3	25.5317 31.4723iv 23.5970 27.4743 23.7223	14.1977 7 10.2647 <sup>ii</sup> 20.7940 11.1867 17.5903	- 13 + 8 + 55 - 95 + 36	1 1 3	$ \begin{array}{c c}8 \\ +.6 \\2 \\0 \\ +2.5 \end{array} $	40 41 10.18 40 27 26.02 40 34 47.72 40 29 31.13 40 38 57.69	$^{+856.29}_{+136.30}$	$egin{pmatrix} +&12 \\ +1.06 \\ -&4 \\ -&17 \\ +&6 \end{matrix}$	$ \begin{array}{rrrr}  & 23 \\  & 6 \\  & 4 \\  & 5 \\  & 75 \end{array} $	$     \begin{array}{r}       -9 \\       +18 \\       +3 \\       +12 \\       -4     \end{array} $	6 8 6 6	23.47 23.69 24.03 22.71 23.37	45.7 45.6
		R D	17.9663 17.7720 21.9757 21.7280 32.1960iv	22.8263 20.5350 20.1610 21.7187 9.6530 ii	$     \begin{array}{r}             + 18 \\             - 19 \\             + 17 \\             0 \\             + 19     \end{array} $	-1.0 $-1.1$ $+1.2$ $+1.4$ $-0.4$	$ \begin{array}{r}2 \\ -1.0 \\ +.7 \\3 \\ -1.5 \end{array} $	40 38 25.57 40 35 13.25 40 37 7.85 40 36 22.56 40 45 55.17	$egin{array}{cccc} -2 & 2.94 \\ + & 1 & 9.82 \\ - & 45.93 \\ + & 0.24 \\ - & 9 & 30.09 \end{array}$	$\begin{array}{c} + & 5 \\ - & 3 \\ + & 2 \\ - & 0 \\ -1.05 \end{array}$	$\begin{array}{cccc} - & 18 \\ - & 30 \\ + & 28 \\ + & 18 \\ - & 25 \end{array}$	$     \begin{array}{r}       -3 \\       +3 \\       -2 \\       0 \\       -17     \end{array} $	6 6 7 8	22.53 22.83 22.27 23.06 23.67	47.4 47.5 47.2
May 3	10 II 1	3	15.8513 9.7507 ii 19.8513 13.1827 18.0827	27.2973 30.8627iv 23.5603 29.3587 24.2100	$+157 \\ +2 \\ +58 \\ +180 \\ +62$	$+ .7 \\4$	+1.7  + .5 8 3  + .4	40 27 27.80 40 34 49.63 40 29 33.10	$egin{array}{c} -449.83 \\ +853.86 \\ +133.94 \\ +649.49 \\ -235.10 \end{array}$	$   \begin{array}{c}     + 12 \\     +1.06 \\     - 4 \\     - 17 \\     + 6   \end{array} $	$\begin{array}{cccc} + & 65 \\ + & 17 \\ - & 17 \\ + & 16 \\ + & 32 \end{array}$	$     \begin{array}{r}       -9 \\       +18 \\       +3 \\       +12 \\       -4     \end{array} $	6 8 6 6 6	23.04 23.15 23.45 22.76 23.46	46.1
	2 2 4 5	D R	23.2250 21.9130 18.4170 22.4593 8.5070 ii	18.3437 19.1710 20.2183 22.4613 31.0853iv	$^{+\ 33}_{+\ 13}_{-\ 11}_{0}_{-\ 6}$	$+1.1 \\ -1.1 \\ +1.7 \\ + .2 \\9$	+1.2 $-0.9$ $+0.5$ $-0.3$ $-1.3$	40 37 8.29 40 36 22.98	$egin{array}{cccc} & -2 & 3.52 \ + & 1 & 9.37 \ - & 45.52 \ + & .05 \ - & 9 & 30.92 \ \end{array}$	$ \begin{array}{cccc} + & 5 \\ - & 3 \\ + & 2 \\ - & 0 \\ -1.05 \end{array} $	$ \begin{array}{cccc} + & 33 \\ - & 28 \\ + & 34 \\ - & 31 \end{array} $	$ \begin{array}{c}  -3 \\ +2 \\ -2 \\ 0 \\ -17 \end{array} $	6 6 7 8 6	22.93 22.86 23.18 23.11 23.25	62.6
May 6	II 1	R	32.6077iv	21.2267 18.2123	$+241 \\ +21 \\ +100 \\ +70 \\ +28$	$\begin{array}{c} + .5 \\ + .9 \\ +1.0 \\ +1.4 \\1 \end{array}$	$-1.6 \\ +1.5 \\ +1.3 \\ +.7 \\ -1.3$	40 34 50.10 40 38 58.95	$\begin{array}{r} -449.97 \\ +853.43 \\ +132.87 \\ -235.69 \\ -23.68 \end{array}$	$egin{array}{cccc} +&12 \ +1.06 \ -&&4 \ +&&6 \ +&&5 \end{array}$	$\begin{array}{rrrr} - & 12 \\ + & 33 \\ + & 32 \\ + & 31 \\ - & 18 \end{array}$	$     \begin{array}{r}       -9 \\       +18 \\       +3 \\       -4 \\       -3     \end{array} $	6 8 6 6 6	22.61 23.31 23.34 23.65 23.07	62.0 d 65.6
	5 6	D	19.2073 22.5233 20.4747 31.8683iv 14.6423	$20.6877 \\ 20.6027$	$+\   \begin{array}{r} +\ 13 \\ +\ 25 \\ 0 \\ +\ 13 \\ +\ 39 \end{array}$	$\begin{array}{c} + .2 \\ .0 \\ -1.4 \\ +1.3 \\ -1.0 \end{array}$	1 + .4 -1.4 + .3 1	40 37 9.06 40 36 23.73	$\begin{array}{cccc} +&1&8.62\\ -&&46.48\\ -&&0.71\\ -&&9&32.01\\ -&&4&50.99 \end{array}$	$ \begin{array}{cccc}  & 3 \\  & 2 \\  & 0 \\  & -1.05 \\  & + 12 \end{array} $	$\begin{array}{cccc} + & 1 \\ + & 5 \\ - & 40 \\ + & 25 \\ - & 17 \end{array}$	$     \begin{array}{c c}                                    $	6 7 8 6 6	23.24 22.70 22.70 23.56 22.37	65.6 64.8
May 9		D	17.3793 $13.4987$ $17.8607$	29.6330	$-26 \\ +220$	+ .41	+ .9	40 38 59.73	+ 132.48	$ \begin{array}{c cccc} +1.06 \\ - & 4 \\ - & 17 \\ + & 9 \\ + & 7 \end{array} $	+ 14	$egin{pmatrix} +18 \ +3 \ +12 \ -4 \ -3 \end{bmatrix}$	8 6 6 6	23.52 23.64 23.10 22.85 23.21	63.5 70.0
	3 4 5 6 7	R	21.5647 9.0933 <sup>ii</sup>	20.0937	$\begin{array}{ccc} + & 1 \\ + & 9 \end{array}$	$ \begin{array}{c}8 \\ -1.7 \\9 \\ +.1 \\4 \end{array} $	3 -1.4 9 1 7	40 36 24.51 40 45 57.34	$\begin{array}{cccc} + & 1 & 7.74 \\ - & 47.04 \\ - & 1.72 \\ - & 9 & 33.13 \\ - & 4 & 51.69 \end{array}$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	- 17 - 45 - 26 - 0 - 15	$     \begin{array}{r}                                     $	6 7 8 6 6	23.01 22.44 22.61 23.13 22.62	69.9 68.6
	8 9 10 III 1 2	R	21.8370 28.6897 29.8550iv	14.2747 ii	$^{0}_{+\ 91}_{-\ 82}$	$-1.6 \\ +1.1 \\ -1.9 \\ +1.1$			$egin{array}{c} + & 1 & 32.03 \ + & 6 & 47.52 \ - & 6 & 33.77 \ \end{array}$	$ \begin{array}{cccc} +1.00 \\ - & 5 \\ - & 21 \\ -1.07 \\ - & 95 \end{array} $	<b>—</b> 32	$   \begin{array}{r}     +18 \\     +3 \\     +12 \\     -14 \\     -24   \end{array} $	8 6 6 9 11	23.47 23.55 23.00 23.03 23.55	68.4 67.6

		Ī_	Ī				Let	vels.		•	Correct	ions.				Ther
1895.	Star.	P		Micro	meter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r	Mer	Latitude.	mom
May 9	III 8	5	2	9.4077 <sup>11</sup> 26. <b>6343</b> 18. <b>3283</b>	34.2007iv 34.4990iv 14.9430 21.8740 16.6290	14 88	$\begin{vmatrix} +1.8 \\ + .2 \\ +3.0 \end{vmatrix}$	1 1 9	0 / // 40 25 40.63 40 25 47.13 40 31 26.78 40 37 51.90 40 37 1.17	+1034.70	$\begin{vmatrix} + & 95 \\ - & 15 \\ + & 5 \end{vmatrix}$	+40	$     \begin{array}{r}     +18 \\     +19 \\     +10 \\     \hline                               $	5 6 7 6 6	40 36 22.79 23.43 22.70 23.14 22.75	66.4 65.4
May 10	III 1	D	1	15.2193 12.4907 10. <b>5</b> 550 34.2160 <sup>iv</sup> 31.4463 <sup>iv</sup>	21.9240 26.2783 26.2287 10.0163 <sup>ii</sup> 6.1153 <sup>ii</sup>	$ \begin{array}{r} -85 \\ -73 \\ -220 \\ +78 \\ -59 \end{array} $	$\begin{array}{ c c c } -1.2 \\ +1.2 \\3 \end{array}$	+ .5 1 +1.2 7 -1.0	40 33 33.17 40 42 11.31 40 42 58.36 40 46 36.69 40 25 41.32	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{vmatrix} + & 19 \\ + & 21 \\ - & 95 \end{vmatrix}$	+ 11 - 21 + 35 - 14 - 24	-10 14 24	6 5 9 11 5	22.62 22.78 23.09 23.34 22.64	65.5 70.4 69.9
	£ ()	5	2 1	32.8750 <sup>iv</sup> 15.0630 22.9010 19.5390 24.0813	7.7513 ii 26.7647 19.3640 21.0753 17.4020	+ 15 + 93 + 35 + 2 + 44	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	8 2 1 2 2	40 25 47.40 40 31 27.04 40 37 52.16 40 37 1.43 40 33 33.43	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} - & 15 \\ + & 5 \\ + & 2 \end{vmatrix}$		$+19 \\ +10 \\ -3 \\ -1 \\ +4$	6 7 6 6 6	23.59 23.04 22.67 22.65 22.47	68.9 68.6 68.3
May 12 May 13	II 1	3	1	17.0733	16.1550 17.6380 22.0533 24.4367 17.7883	+360 + 41 - 20 + 74 + 12	7	$-3 \\ +1.2$	40 42 11.56 40 39 0.37 40 38 28.34 40 39 0.58 40 38 27.66	-237.48 $-25.88$	$\begin{array}{ccc} + & 9 \\ + & 7 \end{array}$	$\begin{vmatrix} + & 1 \\ - & 14 \\ + & 39 \\ - & 23 \\ + & 40 \end{vmatrix}$	$-4 \\ -3$	5 6 6 6 6	23.41 22.86 22.95 23.12 22.48	45. 44. 49.
	\$ 4 6	5	64 64 619	21.1457 20.3793 31.6107iv	18.6367 19.2220 20.4773 8.9127 1 27.2700	$ \begin{array}{cccc}  & 3 \\  & 1 \\  & 0 \\  & + 5 \\  & + 150 \end{array} $	+1.0	$\begin{vmatrix}4 \\ +1.4 \\ +1.4 \\ +.8 \\ +.2 \end{vmatrix}$	40 37 10.72 40 36 25.36 40 45 58.32	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} + & 3 \\ - & 0 \\ - & 97 \end{vmatrix}$	$\begin{vmatrix} - & 18 \\ + & 34 \\ + & 18 \\ + & 37 \\ - & 13 \end{vmatrix}$	$     \begin{array}{r}       + 3 \\       - 2 \\       0 \\       -17 \\       - 9     \end{array} $	6 7 8 6 6	22.91 22.49 23.14 23.64 23.23	48. 47.
Мау 16	II 1	R	1	18.6693 24.0850 18.6013	30.4667iv 22.2270 17.8487 21.7490 21.9870	$ + \ 13 \ + \ 53$	$\left  { \begin{array}{c} + .9 \\ +1.4 \\ +1.3 \\ +1.4 \\ + .5 \end{array}} \right $	$\begin{vmatrix} +1.4 \\ +1.7 \\ +1.1 \\ +2.2 \\4 \end{vmatrix}$	40 27 30.74 40 34 52.82 40 39 1.23 40 38 29.22 40 35 16.99	$\begin{array}{c} + 130.00 \\ - 237.83 \\ - 27.66 \end{array}$	$\begin{bmatrix} - & 5 \\ + & 9 \\ + & 7 \end{bmatrix}$	$\begin{vmatrix} + & 32 \\ + & 44 \\ + & 35 \\ + & 50 \\ + & 3 \end{vmatrix}$	$\begin{array}{ c c c } + 3 \\ - 4 \\ - 3 \end{array}$	8 6 6 6	23.11 23.30 23.86 22.16 23.34	46. 46.
	£ 6	3	2	21.2933 8.9763 <sup>ii</sup>	21.3477 21.2007 31.7003iv 15.8260 9.2462 ii	$^{ }_{+8}^{0}_{+162}$	$ \begin{array}{r} -1.5 \\ -3.7 \\ + .2 \\1 \\2 \end{array} $	$\begin{vmatrix} .0\\ -3.7\\ + .3\\ .0\\6 \end{vmatrix}$	40 37 11.36 40 36 25.98 40 45 59.04 40 41 16.05 40 27 31.40	- 2.34 - 9 34.64 - 4 53.25	$\begin{bmatrix} - & 0 \\ - & 97 \\ + & 16 \end{bmatrix}$	$ \begin{array}{c c} -24 \\ -1.02 \\ + 6 \\ - 1 \\ - 10 \end{array} $		7 8 6 6 8	22.33 22.70 23.38 22.92 23.50	46. 45.
	10 111 111 1	R	1	23.7667 29.4787 30.2933 11.0693 <sup>ii</sup> 8.3527 <sup>ii</sup>	20.2223 13.4423 14.6540 35.3107iv 33.6310iv	+119	$\begin{vmatrix} -1.9 \\ -1.2 \\ + .4 \end{vmatrix}$	$\begin{bmatrix}6 \\3 \end{bmatrix}$	40 34 53.55 40 29 37.12 40 42 59.69 40 46 37.97 40 25 42.79	$   \begin{array}{r}     + 6 \ 46.02 \\     - 6 \ 36.32 \\     - 10 \ 13.29   \end{array} $	$\begin{bmatrix} - & 21 \\ + & 21 \\ - & 95 \end{bmatrix}$	$ \begin{vmatrix} - & 10 \\ - & 51 \\ - & 27 \\ + & 2 \\ + & 8 \end{vmatrix} $	$     \begin{array}{r}       + 3 \\       +12 \\       -14 \\       -24 \\       +18     \end{array} $	6 9 11 5	23.27 22.60 23.26 23.62 23.36	44.3
May.		3	1 2 1	17.2320	15.5683 22.8913 19.6697 23.8687 27.8740	+136  +34  +4  +32  +116	+.7 $-2.3$ $+.7$ $4$ $-1.4$	4 -1.4 2 5 + .9	40 31 28.37 40 37 53.53 40 37 2.77 40 33 34.74 40 42 12.82	$\begin{array}{c} - & 40.93 \\ + & 247.90 \end{array}$	$\begin{vmatrix} + & 2 \\ - & 9 \end{vmatrix}$	<b>—</b> 55	$     \begin{array}{r}       +10 \\       -3 \\       -1 \\       +4 \\       -10     \end{array} $	7 6 6 6 5	23.16 22.82 21.99 22.52 23.17	40.0 39.9
18	II 1 2 3 4 4 5 5		2 22 22	21.8227 21.1150 21.6063	24.5590 16.8053 18.5097 19.6777 19.8327	32		.0 0 8 -1.5 +1.0	40 39 1.73 40 38 29.73 40 35 17.53 40 37 11.86 40 36 26.48	$\begin{array}{ccccc} -& 2 & 38.75 \\ -& 2 & 6.79 \\ +& 1 & 5.86 \\ -& & 48.79 \\ -& & 4.22 \end{array}$	$\begin{vmatrix} + & 7 \\ - & 3 \\ + & 3 \end{vmatrix}$	$ \begin{array}{rrrr}  - & 5 \\  + & 30 \\  - & 31 \\  - & 33 \\  + & 46 \end{array} $	$     \begin{array}{r}       -4 \\       -3 \\       +3 \\       -2 \\       -0     \end{array} $	6 6 6 7 8	23.04 23.34 23.14 22.82 22.80	52.
	6 7 8 9	, 	1	9.5340 <sup>n</sup> 17.6677	8.8167 <sup>ii</sup> 26.1503 30.5093 <sup>iv</sup> 21.2073 29.1993	— 19	<b>—</b> .2	.0	40 45 59.58 40 41 16.61 40 27 31.91 40 34 54.10 40 29 37.68	-453.84 $+85040$	+16	$ \begin{array}{r} + 29 \\ - 38 \\ - 3 \\ - 5 \\ + 10 \end{array} $	$     \begin{array}{r}       -17 \\       -9 \\       +18 \\       +3 \\       +12     \end{array} $	6 6 8 6	23.35 22.52 23.54 23.55 22.84	52.4 51.6 51.5 50.7

		_				Let	vels.			C	orrections.			T = 4/4 - 3 -	Ther
1895.	Star.	P	Micromet	er.	c	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom
Иау 18	III 1 2 3 4 5	D	33.4257iv 31.6787iv 32.9903iv 7	.1643 <sup>ii</sup> .4143 <sup>ii</sup> .9407 <sup>ii</sup>	49 47	7 1 3 -1.8 5	$ \begin{array}{r} -2.0 \\ + .9 \\ -1.0 \\ -1.6 \\3 \end{array} $	0 / // 40 43 0.16 40 46 38.40 40 25 43.30 40 25 49.32 40 31 28.83	$-10\ 13.62  +10\ 38.74  +10\ 33.48$	$\begin{vmatrix} - & 95 \\ + & 94 \\ + & 95 \end{vmatrix}$	- 36 + 10 - 18 - 49 - 12	-14 $-24$ $+18$ $+19$ $+10$	11 5 6	40 36 22.77 23.80 23.03 23.51 23.32	48.6
May 22	II 1 2 3 4	R	23.2150 16 17.1100 23 17.7933 20	.9733 — .8917 + .1577 + .3290 — .2077 —	7	$ \begin{array}{r}3 \\ + .9 \\ -1.2 \\ +1.9 \\ -1.0 \end{array} $	$ \begin{array}{c c}8 \\ +.2 \\ -1.1 \\ +1.9 \\2 \end{array} $	40 37 53.99 40 39 2.74 40 38 30.78 40 35 17.53 40 37 12.90	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} + & 9 \\ + & 7 \\ - & 3 \end{vmatrix}$	- 15 + 17 - 33 + 55 - 18	- 3 - 4 - 3 + 3 - 2	6	23.02 23.12 22.89 22.21 22.45	49.6 49.8
	5 6 7 8 9		8.4027 ii 31 26.0510 14 31.6563iv 10	.7730 .2087iv .3677 .7547 ii + .9000	7	$ \begin{array}{r} -1.1 \\7 \\ +1.6 \\6 \\6 \end{array} $	$ \begin{array}{c c}8 \\ -1.2 \\ +1.7 \\ +.1 \\3 \end{array} $	40 36 27.50 40 46 0.74 40 41 17.79 40 27 33.01 40 34 55.29	-455.48 + 848.55	$\begin{vmatrix} -97 \\ +16 \\ +1.00 \end{vmatrix}$	- 27 - 27 + 48 - 8 - 13	$0 \\ -17 \\ -9 \\ +18 \\ +3$	8 6 6 8 6	22.82 22.72 22.92 22.74 23.46	49.9
	10 III 1 2 3 4	R		$.6577 \\ .9210^{\mathrm{iv}} \\ + \\ .5987^{\mathrm{iv}} \\ +$	478 65 46	$ \begin{array}{r}4 \\ + .2 \\2 \\ + 3.3 \\ + .7 \end{array} $	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	40 29 38.91 40 43 1.28 40 46 39.49 40 25 44.51 40 25 50.51	$ \begin{array}{r} -638.20 \\ -1015.00 \\ +1036.82 \end{array} $	$\begin{vmatrix} + & 21 \\ - & 95 \\ + & 94 \end{vmatrix}$	$ \begin{array}{r r} - & 11 & 0 \\ - & 4 \\ + & 73 \\ + & 11 \end{array} $	-14	6 9 11 5 6	22.56 23.24 23.37 23.23 23.83	49.9 47.4 47.2
Wa w	5 6 7 8 9		18.6003 22 20.2147 18 18.3367 24	$\begin{array}{c c} .2450 & + \\ .5660 & - \end{array}$	13 8	$^{+.9}_{-1.4}$ $^{2}_{+.9}$ $^{-1.9}$	+ .3 3 5 2 + .2	40 31 29.94 40 37 55.13 40 37 4.33 40 33 36.77 40 42 14.29	-132.20 $-41.67$	$\begin{vmatrix} + & 5 \\ + & 2 \\ - & 9 \end{vmatrix}$	+ 18 - 26 - 9 + 12 - 28	+10 - 3 - 1 + 4 -10	7 6 6 6 5	23.06 22.75 22.64 23.32 22.95	46.0 46.0
May 23	II 1 2 3 4 5	D	22.9833   17 22.4753   19 21.5437   19	.8897 .9160 .9267 .5367 .6840	20 28	-1.2 + .9 -1.41 + .5	$ \begin{array}{c c}2 \\ +1.8 \\9 \\ +1.6 \\ -1.2 \end{array} $	40 39 2.96 40 38 31.02 40 35 18.87 40 37 13.14 40 36 27.75	$\begin{array}{c cccc} - & 2 & 8.19 \\ + & 1 & 4.52 \\ - & & 50.77 \end{array}$	$\begin{vmatrix} + & 7 \\ - & 3 \\ + & 3 \end{vmatrix}$	$\begin{vmatrix} - & 22 \\ + & 37 \\ - & 34 \\ + & 19 \\ - & 7 \end{vmatrix}$	$     \begin{array}{r}       -4 \\       -3 \\       +3 \\       -2 \\       0     \end{array} $	6 6 6 7 8	22.50 23.30 23 11 22.64 22.41	61. 60.
	6 7 8 9 10			.7450 —	3	$\begin{array}{c} + .2 \\ + .4 \\ + .8 \\ + .6 \\ + .1 \end{array}$	$ \begin{array}{c c}6 \\ +1.4 \\ +1.9 \\ +.8 \\ .0 \end{array} $	40 46 1.00 40 41 18.07 40 27 33.27 40 34 55.57 40 29 39.21	-455.97 $+848.26$ $+127.14$	$\begin{array}{c c} + & 16 \\ +1.00 \\ - & 5 \end{array}$	$\begin{vmatrix} - & 4 \\ + & 24 \\ + & 37 \\ + & 19 \\ + & 1 \end{vmatrix}$	-17 $-9$ $+18$ $+3$ $+12$	6	23.04 22.47 23.16 22.94 22.73	58. 58.
	III 1 2 3 4 5	İ	33.5757iv 9 32.3437iv 7 32.9980iv 8	$ .0103^{ii}  +$	25 55 12 22 103	$\begin{array}{c}2 \\ + .9 \\ -2.5 \\ -1.9 \\6 \end{array}$	$\begin{vmatrix} + .4 \\1 \\9 \\ -1.9 \\ -1.7 \end{vmatrix}$	40 43 1.57 40 46 39.78 40 25 44.84 40 25 50.83 40 31 30.25	$ \begin{array}{r} -10\ 15.36 \\ +10\ 37.07 \\ +10\ 31.91 \end{array} $	$\begin{vmatrix} - & 95 \\ + & 94 \\ + & 95 \end{vmatrix}$	- 51 - 55	$ \begin{array}{r} -14 \\ -24 \\ +18 \\ +19 \\ +10 \end{array} $	11 5 6	22.98 23.47 22.57 23.39 23.10	55. 56. 56. 55.
May 28	6 7 8 9 II 1		19.4870   21 23.8427   17 27.5213   13	3.7537 + .1140 + .2587 + .6410 + .0917 +	19 2 32 69 124	+ .7 $-1.2$ $5$ $-1.6$ $-1.1$	$\begin{vmatrix} + .1 \\ -1.2 \\9 \\2 \\ -1.0 \end{vmatrix}$	40 37 55.44 40 37 4.64 40 33 37.07 40 42 14.59 40 39 3.88	$\begin{array}{c} - & 41.13 \\ + & 246.57 \\ - & 551.16 \end{array}$	$\frac{+}{+} \frac{2}{9} + \frac{2}{19}$	_ 35	$     \begin{array}{r}         -3 \\         -1 \\         +4 \\         -10 \\         -4     \end{array} $	6 6 5	23.16 23.21 23.46 23.29 22.96	54. 61.
	2 3 4 5 6		19.4987 21 20.9440 22	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	41	$\begin{array}{c} + .3 \\ +1.6 \\ +1.0 \\7 \\ + .1 \end{array}$	$\left  egin{array}{c} + .6 \\ +2.1 \\ +4.0 \\ -1.7 \\ + .3 \end{array} \right $	40 36 28.71	- 51.43 $-$ 5.75	$\begin{vmatrix} - & 0 \\ - & 3 \end{vmatrix}$		$\begin{array}{ c c c } + & 3 \\ - & 2 \\ - & 0 \end{array}$	8	23.27 23.38 22.98 22.71 23.37	61. 60.
	7 8 9 10 III 1	ŀ	31.1387iv 22.6723 30.3203 14	$egin{array}{c c} 0.2653 & + \ 0.2440 & + \ 0.4373 & + \ \end{array}$	28 329	<b>—</b> .1	$\begin{vmatrix}1 \\ +1.8 \\ + .2 \end{vmatrix}$	40 41 19.26 40 27 34.37 40 34 56.81 40 29 40.48 40 43 2.83	$\begin{array}{r} + 847.83 \\ + 126.76 \\ + 642.46 \end{array}$	$\begin{vmatrix} +1.00 \\ - & 5 \\ - & 21 \end{vmatrix}$	$\begin{vmatrix} - & 3 \\ + & 34 \\ + & 1 \end{vmatrix}$		8 6 6	23.30 23.43 23.95 22.92 23.19	59. 57.

1895.	C4 ~		300		~	Lev	els.			Correcti	ons.				Ther
	Star.	P	Micro	meter.	$\boldsymbol{c}$	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom
May 28	III 2 3 4 5		7.1950 <sup>ii</sup> 6.4070 <sup>ii</sup> 27.2697	32.2887iv 32.3230iv 31.3303iv 15.7700 22.8610	-12 $-51$ $+151$	$\begin{array}{c} .0 \\ +1.5 \\2 \\6 \\ -1.5 \end{array}$	$ \begin{array}{c c}7 \\ +.4 \\2 \\ .0 \\ .0 \end{array} $	40 46 41.02 40 25 46.27 40 25 52.24 40 31 31.59 40 37 56.85	$^{+10}_{-10}$ 35.38 $^{+10}$ 30.10	$   \begin{array}{ccc}     + & 94 \\     + & 95 \\     - & 15   \end{array} $	$ \begin{array}{rrr}  & 9 \\  + & 29 \\  - & 5 \\  - & 9 \\  - & 24 \end{array} $	$     \begin{array}{r}     -24 \\     +18 \\     +19 \\     +10 \\     -3     \end{array} $	11 5 6 7 6	40 36 23.40 23.11 23.49 22.69 22.86	57 8
May 29	II 1	D	21.9400 18.4503 15,2607 15.3467 23.5237	20.2223 24.9193 29.2067 21.7423 18.4167	+270	$ \begin{array}{c c} + .3 \\4 \\ +1.2 \\1 \\ + .4 \end{array} $	+ .8	40 33 38.47 40 42 15.95	$ \begin{array}{r} + 243.82 \\ - 553.33 \\ - 241.52 \end{array} $	+ 19 + 9	$ \begin{array}{rrr}  & 1 \\  & 1 \\  & 29 \\  & 3 \\  & 16 \end{array} $	$     \begin{array}{r}       -1 \\       +4 \\       -10 \\       -4 \\       -3     \end{array} $	6 6 5 6	22.63 22.29 23.05 22.67 23.19	55.5 55.5 70.5
	£ (	1 5	21.4317 21.4357 21.3003 33.6670 <sup>iv</sup> 15.6523	18.9620 19.3727 21.5577 10.7977 1 27.3723		+.7	$ \begin{array}{c c} + .5 \\ +2.3 \\1 \\ +1.0 \\ + .5 \end{array} $	40 36 28.89 40 46 2.35	$\begin{array}{ c c c c c }\hline & 52.18 \\ - & 6.52 \\ - & 9 & 38.43\end{array}$	$\begin{vmatrix} + & 3 \\ - & 0 \\ - & 97 \end{vmatrix}$	$egin{pmatrix} + & 9 \\ + & 40 \\ - & 8 \\ + & 40 \\ - & 3 \end{bmatrix}$	$egin{pmatrix} + & 3 \ & 2 \ 0 \17 \ & 9 \end{bmatrix}$	6 7 8 6 6	22.72 22.61 22.37 23.24 22.83	69. 69.
	10 111 12	D	18,7373 13,4973	28.7387iv 22.1527 29.4047 27.4983 8.5630 i	$+13 \\ +201 \\ -58$	6 .0	$\begin{vmatrix} + .3 \\ -1.5 \\ +1.4 \end{vmatrix}$	40 34 57.02 40 29 40.72 40 43 3.06	$egin{array}{r} + & 1 & 26.40 \\ + & 6 & 42.75 \\ - & 6 & 39.92 \end{array}$	$\begin{bmatrix} - & 5 \\ - & 21 \\ + & 21 \end{bmatrix}$	$egin{pmatrix} -&1\ +&9\ -&28\ +&18\ +&43 \end{bmatrix}$	$egin{array}{c} +18 \ +3 \ +12 \ -14 \ -24 \ \end{array}$	8 6 6 9 11	22.90 23.55 23.16 23.48 23.55	69. 70.
	4	1 5	34.4820 <sup>iv</sup> 32.2850 <sup>iv</sup> 12.6780 21.6370 19.4893		i — 8	$\frac{8}{+.8}$	$ \begin{array}{c c}7 \\1 \\ +.7 \\ +.3 \\7 \end{array} $	40 31 31.84 40 37 <b>5</b> 7.11	$ \begin{array}{r} +10\ 30.13 \\ +\ 4\ 51.15 \\ -\ 1\ 34.39 \end{array} $	$+ 95 \\ - 15$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	+18  +19  +10  -3  -1	5 6 7 6 6	22.74 23.68 23.23 22.92 22.76	70.3 68. 68.
May 30	II 1	R	23.3887 27.1227 24.1530 19.1713 17.7260	16.8920 13.1613 17.8063 24.2953 20.2033	$     \begin{array}{r}       + 9 \\       + 17 \\       + 55 \\       + 79 \\       - 22     \end{array} $	$\left  { +  .3 \atop -1.1 \atop +1.2 } \right $	$egin{bmatrix}2 \\ + .1 \\ -1.0 \\ + .7 \\ + .5 \end{bmatrix}$	40 39 4.25 40 38 32.38	$\begin{array}{c} -553.08 \\ -240.63 \\ -29.77 \end{array}$	$egin{bmatrix} + & 19 \\ + & 9 \\ + & 7 \end{bmatrix}$	$egin{array}{ccccc} -&15 \\ +&6 \\ -&30 \\ +&28 \\ +&17 \end{array}$	$egin{pmatrix} +\ 4\ -10\ -\ 4\ -\ 3\ +\ 3 \end{bmatrix}$	6 5 6 6	22.88 23.32 23.43 22.99 23.14	68. 68. 80.
	£ 6	5	9,4743 ii	22.1670 20.6463 32.3443iv 14.2317 10.7833 ii	$egin{pmatrix} + & 20 \ + & 2 \ + & 22 \ + & 11 \ + & 7 \ \end{pmatrix}$	+ .3	$ \begin{array}{c c} .0 \\6 \\1 \\ +1.1 \\ + .3 \end{array} $	40 36 29.09 40 46 2.58 40 41 19.72	-938.36 $-457.10$	+ 16	$egin{pmatrix} + & 8 \\ - & 10 \\ + & 3 \\ + & 30 \\ + & 15 \\ \end{matrix}$	$egin{array}{c} -2 \ 0 \ -17 \ -9 \ +18 \end{array}$	7 8 6 6 8	22.66 22.36 23.17 23.05 23.01	78.6 77.6
	10 111 1	$\mathbf{R}$	30.1153 27.5983 6.8187 ii	19.8020 14.2613 11.7813 31.2177 <sup>iv</sup> 32.6020 <sup>iv</sup>	+300 $-43$ $-41$	$\begin{array}{c} + .7 \\ +1.0 \\4 \\ .0 \\ +1.7 \end{array}$	$egin{pmatrix} + & .2 \\ + & .6 \\ + & .3 \\ + & .2 \\ + & .2 \end{pmatrix}$	40 43 3.29 40 46 41.47	+641.65 $-639.85$ $-1016.87$	$ \begin{array}{c c} - & 21 \\ + & 21 \\ - & 95 \end{array} $	$egin{pmatrix} + & 13 \\ + & 23 \\ - & 2 \\ + & 2 \\ + & 30 \end{matrix}$	$   \begin{array}{r}     + 3 \\     + 12 \\     - 14 \\     - 24 \\     + 18   \end{array} $	6 9 11 5	23.60 22.82 23.58 23.54 23.07	77.4
	£ 6	5	26.1163 19.3837 21.5640	31.8797iv 14.6037 23.1080 19.8287 23.3503	$\begin{array}{r}   + \ 35 \\ + \ 40 \\ + \ 9 \end{array}$	$egin{pmatrix} + .8 \\1 \\ -1.1 \\ + .2 \\9 \end{bmatrix}$	$\begin{bmatrix}3 \\3 \\ .0 \end{bmatrix}$	40 25 52.75 40 31 32.08 40 37 57.36 40 37 6.40 40 33 38.96	$\begin{array}{r} + 451.20 \\ - 134.28 \\ - 43.90 \end{array}$	$egin{pmatrix} - & 15 \\ + & 5 \\ + & 2 \\ \end{pmatrix}$	$-5 \\ -21 \\ +3$	$     \begin{array}{r}       +19 \\       +10 \\       \hline       -3 \\       -1 \\       +4     \end{array} $	6 6 6 6	23.31 23.25 22.95 22.60 22.94	73.4 73.4
June 7		D	22.5760 $22.5817$	28.5303 24.8287 17.3740 20.2090 19.4920	+ 89 1	$ \begin{array}{r} -1.2 \\ +1.4 \\ + .4 \\ + .4 \\ + .9 \end{array} $	$\begin{vmatrix} +1.1 \\ + .6 \end{vmatrix}$	40 42 16.43 40 39 5.92 40 38 34.13 40 35 22.19 40 37 16.29	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{pmatrix} + & 9 \ + & 7 \ - & 3 \end{bmatrix}$	$\begin{array}{rrrr} - & 29 \\ + & 36 \\ + & 14 \\ + & 20 \\ + & 33 \end{array}$	$     \begin{array}{r r}     -10 \\     -4 \\     -3 \\     +3 \\     -2     \end{array} $	5 6 6 7	23.42 23.32 22.83 22.52 22.58	74.: 62.: 63.: 63.:
	5 6 7 8		20.3100 32.1707 <sup>iv</sup> 14.0543 9.7050 <sup>ii</sup> 19.8670	20.6490 9.2097 ii 25.9080 30.4540iv 23.1640	$     \begin{array}{r}             + 1 \\             + 17 \\             - 5 \\             + 1 \\             + 44 \end{array} $	$egin{array}{c} + .5 \\ + 1.5 \\ + .4 \\ + 2.0 \\ + 1.1 \\ \end{array}$	$\left  egin{array}{c} + .3 \\ .0 \\ .0 \\ +1.9 \\ + .4 \end{array} \right $	40 36 30.87 40 46 4.62 40 41 21.85 40 27 36.79 40 34 59.46	-940.65 $-459.73$ $+844.68$	$egin{array}{c} - & 97 \ + & 16 \ + 1.00 \ \end{array}$	$ \begin{array}{ccccc} + & 12 \\ + & 24 \\ + & 6 \\ + & 56 \\ + & 22 \end{array} $	$0 \\ -17 \\ -9 \\ +18 \\ +3$	8 6 6 8	22.50 23.13 22.31 23.29 23.20	62.3 60.9

100-	<b>~</b> .					Let	els.			Correc	tions.				The
1895.	Star.	P 	Micro	meter.	<i>c</i>	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mon
	II 10 III 1 2 3 4			28.7970 29.2020 8.2147 <sup>ii</sup> 9.6937 <sup>ii</sup> 7.7937 <sup>ii</sup>	$ +172 \\ + 18 \\ + 96$	$+1.4 \\ + .2 \\ + .6 \\9 \\ -1.8$	$egin{pmatrix} + .2 \\ + .1 \\ + .6 \\4 \\ -1.5 \end{bmatrix}$	0 / // 40 29 43.26 40 43 5.57 40 46 43.72 40 25 49.37 40 25 55.28	$+10\ 32.19$	$egin{bmatrix} + & 21 \\ - & 95 \\ + & 94 \end{bmatrix}$	$\begin{vmatrix} + & 4 \\ + & 17 \\ - & 19 \end{vmatrix}$	$egin{array}{c} +12 \\ -14 \\ -24 \\ +18 \\ +19 \\ \end{array}$	9 11 5	0 36 23.09 22.91 23.25 22.54 23.24	60. 59. 57.
une	5 6 7 8 9		22.5513 19.7343 24.2300	24.9813 18.7393 21.5827 17.8223 15.0190	$     \begin{array}{r}         -73 \\         +22 \\         +9 \\         +58 \\         +247     \end{array} $	$^{+.3}_{+1.3}_{-1.0}$	$\begin{array}{c c}4 \\8 \\ +1.5 \\ -1.2 \\ -1.5 \end{array}$	40 33 41.46	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$egin{bmatrix} + & 5 \\ + & 2 \\ - & 9 \end{bmatrix}$	$\begin{vmatrix} - & 5 \\ + & 40 \\ - & 31 \end{vmatrix}$	$\begin{vmatrix} +10 \\ -3 \\ -1 \\ +4 \\ -10 \end{vmatrix}$	6 6 6	22.80 23.45 22.54 23.34 23.42	56 56
	II 1 2 3 4 5	R	24.1690 18.2847 20.1353 19.8990 21.3490	17.7060 23.4903 22.5097 22.0437 21.0060	$   \begin{array}{r}     + 54 \\     + 42 \\     + 28 \\     + 18 \\     + 3   \end{array} $	+ .2    + .4	+1.2 $+ .4$ $+1.1$ $2$ $5$	40 37 16.47	$egin{bmatrix} -& 2 & 11.74 \ +& 1 & 0.11 \ -& 54.28 \end{matrix}$	$\begin{vmatrix} \dotplus & 7 \\ - & 3 \\ + & 3 \end{vmatrix}$	$\begin{vmatrix} + & 17 \\ + & 4 \end{vmatrix}$	$\begin{bmatrix} -4 \\ -3 \\ +3 \\ -2 \\ 0 \end{bmatrix}$	6 6 7	23.01 22.84 22.71 22.31 22.39	66
	6 7 8 9 10		9.3100 <sup>11</sup> 25.2997 30.1337 <sup>1</sup> 22.1797 28.2003	32.2683iv 13.4573 9.3610 ii 18.8700 12.4153	<b>— 65</b>	$ \begin{array}{c c}9 \\4 \\ + 1.2 \end{array} $	$ \begin{array}{c c} -1.5 \\ -1.3 \\4 \\ + .3 \\ + .8 \end{array} $	40 27 36.99 40 34 59.69	-459.29 +845.27 +123.73	$\begin{vmatrix} + & 16 \\ +1.00 \\ - & 5 \end{vmatrix}$	- 31 - 11	$\begin{bmatrix} -17 \\ -9 \\ +18 \\ +3 \\ +12 \end{bmatrix}$	6 8 6	22.77 22.61 23.41 23.69 22.87	68
	III 1 2 3 4 5	R	6.6037 ii 7.2743 ii	12.7123 34.5417iv 31.6060iv 32.0743iv 16.6190	— 42 — 15	$7 \\ +1.4$	$ \begin{array}{c c}8 \\ + .2 \\4 \\5 \end{array} $	40 46 44.06 40 25 49.68 40 25 55.59	$-10\ 19.44 \\ +10\ 32.12 \\ +10\ 27.07$	$\begin{vmatrix} - & 95 \\ + & 94 \\ + & 95 \end{vmatrix}$	$\begin{array}{ c c c c c } + & 22 \\ - & 19 \end{array}$	+19	11 5 6	23.38 23.46 23.19 23.67 23.08	6: 5: 5:
ıne 9	6 7 8 9 II 1	D	18,5807 21,4267 18,3747 13,8253 17,1897	22.4400 19.5900 24.7207 27.8707 23.6450	$egin{bmatrix} +&18 \\ +&6 \\ +&85 \\ +103 \\ +&24 \\ \end{smallmatrix}$	$\begin{bmatrix}2 \\7 \\ -2.0 \end{bmatrix}$	$\begin{vmatrix} .0 \\6 \\ +.5 \\ -1.2 \\6 \end{vmatrix}$	40 33 41.78	$egin{array}{c} -46.46 \ +240.68 \ -555.42 \ \end{array}$	$\begin{vmatrix} + & 2 \\ - & 9 \\ + & 19 \end{vmatrix}$	$\begin{vmatrix} - & 10 \\ - & 4 \\ - & 47 \end{vmatrix}$		6 6 5	22.63 22.86 22.43 23.42 22.97	56
	2 3 4 5 6		22.1483 21.9847 20.5217 18.3230 30.7057iv	16.9603 19.5997 18.3697 18.6603 7.7273	$ \begin{array}{c c} -19 \\ +15 \\ -10 \\ -5 \\ -20 \end{array} $	$\begin{array}{c} .0 \\ .0 \\ +1.0 \end{array}$	+1.0	40 35 22.55 40 37 16.63	$ \begin{array}{ccccc} + & 1 & 0.35 \\ - & & 54.39 \\ - & & 8.52 \end{array} $	$\begin{vmatrix} - & 3 \\ + & 3 \\ + & 0 \end{vmatrix}$	$\begin{vmatrix} + & 16 \\ + & 13 \\ + & 25 \end{vmatrix}$		6 7 8	23.40 23.12 22.45 23.02 23.22	6
	7 8 9 10 III 2		14.2023 9.5247 ii 16.7587 12.5320 30.5783iv	26.0520 30.2777iv 20.0343 28.2913 6.0607 ii	-47 + 55	$\begin{vmatrix} +1.3 \\ +.7 \\ .0 \end{vmatrix}$	$\begin{vmatrix} +1.7 \\ +1.1 \\ + .4 \end{vmatrix}$	40 34 59.91 40 29 43.74	+844.77 +122.71 +638.64	$\begin{vmatrix} +1.00 \\ - & 5 \\ - & 21 \end{vmatrix}$	$egin{pmatrix} + & 43 \\ + & 25 \\ + & 5 \\ \end{pmatrix}$	$+18 \\ +3 \\ +12$	8 6 6	22.77 23.65 22.91 22.40 23.27	6 6
	3 4 5 6 7		34.4747iv 31.2170iv 13.0320 22.3390 19.2793	9.5160 ii 6.4213 ii 24.4347 18.4723 21.1253	$egin{array}{cccccccccccccccccccccccccccccccccccc$	7 -1.9 5 7	$\begin{bmatrix}7 \\4 \end{bmatrix}$	40 38 0.48	+448.02 $-137.81$	+ 15 + 5	$\begin{vmatrix} - & 48 \\ - & 17 \\ - & 16 \end{vmatrix}$	$\begin{vmatrix} +19 \\ +10 \\ -3 \end{vmatrix}$	$\begin{vmatrix} 6 \\ 7 \end{vmatrix}$	22.42 23.47 22.95 22.59 22.83	
ane 11		R	25.6367 27.7983 24.8550 17.5980 19.5537	19.2757 13.7207 18.3853 22.8203 21.9357	$     \begin{array}{r}       +134 \\       +93 \\       +91 \\       +94 \\       +14 \\    \end{array} $	$2 \\ +1.6$	$\begin{vmatrix}4 \\ +1.2 \\ .0 \end{vmatrix}$	40 42 19.47 40 39 6.51 40 38 34.76	- 5 56.21 - 2 43.83 - 2 12.08	+ 19	$\begin{vmatrix} - & 8 \\ + & 41 \\ 0 \end{vmatrix}$	—10 — 4 — 3	5 6 6	22.98 23.32 23.20 22.78 23.01	7
	4 5 6 7 8		20.1167 21.2330 8.9250 <sup>11</sup> 26.3537 31.1360 <sup>1</sup>	22.2550 20.8940 31.8933 <sup>1</sup> 14.4820 10.3847 <sup>1</sup>	$ +\ 1 \\ +\ 11$	$egin{array}{c} + .9 \\ -1.8 \\ -1.6 \\ +1.1 \\ + .1 \end{array}$	8	40 41 22.69	- 8.57 - 9 40.82 - 5 0.31	$\begin{vmatrix} - & 0 \\ - & 97 \\ + & 16 \end{vmatrix}$	$\begin{vmatrix} - & 39 \\ - & 33 \\ + & 22 \end{vmatrix}$	17	8 6 6	23.04 22.65 23.17 22.73 23.51	

	<b>~</b> .		76.		a	Lev	els.	1 ( 0 . 0.)		Correc	tions.			Latitude.	The
1895.	Star.	P	Micromete	er.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer		mon
une 11	II 9 10		28.9590 13.	$egin{array}{c c} .2180 & + \ .9723 & + \ .9933^{\scriptscriptstyle 1V} & + \end{array}$	-148 -268 - 28	<b>—</b> .2	$\begin{array}{c} + .7 \\ + .3 \\ + .3 \\0 \\ + .4 \end{array}$	0 / // 40 35 0.33 40 29 44.18 40 43 6.55 40 46 44.69 40 25 50.53	$ \begin{array}{r} + 638.41 \\ - 643.27 \\ - 1020.34 \end{array} $	$\begin{bmatrix} - & 21 \\ + & 21 \\ - & 95 \end{bmatrix}$	$egin{pmatrix} + & 15 \\ + & 12 \\ - & 5 \\ - & 3 \\ + & 30 \end{bmatrix}$	$egin{array}{c} + \ 3 \ +12 \ -14 \ -24 \ +18 \ \end{array}$	9 11	40 36 23.52 22.68 23.39 23.24 23.42	69 6 67.6 67.8
	4 5 6 7 8		19.9240 23 20.3847 18.	$egin{array}{c c} .4273 & + \ 7963 & + \ \end{array}$			$\begin{array}{c} + .2 \\6 \\ -2.1 \\1 \\0 \end{array}$	40 25 56.42 40 31 35.61 40 38 1.04 40 37 10.19 40 33 42.54	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{bmatrix} - & 15 \\ + & 5 \\ + & 2 \end{bmatrix}$	$\begin{vmatrix} + & 4 \\ - & 10 \\ - & 57 \\ + & 8 \\ - & 5 \end{vmatrix}$	$     \begin{array}{r}       +19 \\       +10 \\       \hline       -3 \\       -1 \\       +4     \end{array} $	6	23.54 22.68 22.47 22.76 22.66	67. 67.
une 14		_	17.7133 24. 22.9047 17. 21.6937 19	.1957 .6637 .3387	- 19  - 55  - 13  - 13  - 5	$\frac{7}{+1.0}$	7 -1.6 1 .0 1	40 42 20.02 40 39 7.02 40 38 35.31 40 35 23.47 40 37 17.50	$\begin{array}{c} - & 244.06 \\ - & 212.56 \\ + & 59.58 \end{array}$	$\begin{vmatrix} + & 9 \\ + & 7 \\ - & 3 \end{vmatrix}$	- 42 - 31 + 14 - 30 - 11	$     \begin{array}{r}     -10 \\     -4 \\     -3 \\     +3 \\     -2     \end{array} $	5 6 6 7	23.57 22.76 22.99 22.81 22.73	67. 75. 75. 75.
	5 6 7 8 10		31.6827 <sup>iv</sup> 8 15.3190 27 9.6980 <sup>ii</sup> 30	.1960 .41201v	$egin{array}{cccc} + & 1 \ + & 4 \ + & 129 \ + & 1 \ + & 292 \end{array}$	-1.1	$ \begin{array}{c} -1.8 \\ + .2 \\2 \\ +1.8 \\ .0 \end{array} $	40 36 32.09 40 46 6.04 40 41 23.36 40 27 38.18 40 29 44.91	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{vmatrix} -97 \\ +16 \\ +1.00 \end{vmatrix}$	$\begin{array}{r r} - & 32 \\ + & 17 \\ - & 20 \\ + & 33 \\ + & 14 \end{array}$	$egin{array}{c} 0 \\ -17 \\ -9 \\ +18 \\ +12 \\ \end{array}$		22.84 23 44 22.63 23.56 23.22	75. 74. 73.
une 16 23	II 1 II 1 2 3 4	R	23.7430 17 17.8683 23 19.7780 22	.2060  -  .1787  -  .0423  -	$egin{array}{cccc} + & 55 \\ + & 27 \\ + & 24 \\ + & 17 \\ + & 71 \end{array}$	$^{+}$ .4 $^{+1.4}$ $^{+1.7}$	$ \begin{array}{r r}4 \\ + .8 \\ +1.1 \\ + .4 \\1 \end{array} $	40 39 8.11	-245.37 $-214.34$	$\begin{vmatrix} + & 9 \\ + & 7 \\ - & 3 \end{vmatrix}$	$egin{bmatrix} + & 6 \\ + & 16 \\ + & 36 \\ + & 32 \\ - & 11 \end{bmatrix}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	6 6 6	23.25 23.01 22.89 22.78 22.57	68 75 75 74
	5 6 7 8 9		8.3750 <sup>11</sup> 31 27.1063 15 31.2247 <sup>1</sup> v 10	.1240 .5940 <sup>ii</sup> -	$ \begin{array}{ccccc} + & 3 \\ - & 3 \\ +116 \\ + & 3 \\ + & 45 \end{array} $	$^{+.6}_{+1.6}$	$egin{bmatrix} -1.2 \\ + .1 \\ + .6 \\1 \\ + .7 \end{bmatrix}$	40 36 33.69 40 46 7.92 40 41 25.39 40 27 39.88 40 35 3.16	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} -97 \\ +16 \\ +1.00 \end{vmatrix}$	$ \begin{vmatrix} - & 22 \\ + & 11 \\ + & 33 \\ - & 4 \\ + & 28 \end{vmatrix} $	$egin{bmatrix} 0 \\ -17 \\ -9 \\ +18 \\ +3 \end{bmatrix}$	6 6 8	22.87 23.07 22.56 22.79 23.53	72 72
un e 25		D	14.1547 32.4520 <sup>iv</sup> 33.8760 <sup>iv</sup> 9	.2363 .7807 <sup>-ii</sup> .0720 <sup>-ii</sup>		-3.2	$egin{array}{c} +1.3 \\1 \\9 \\ -2.5 \\3 \end{array}$	40 43 10.23 40 46 48.38	$     \begin{array}{r}       -647.43 \\       -1023.87 \\       +1027.37     \end{array} $	$\begin{vmatrix} + & 21 \\ - & 95 \\ + & 94 \end{vmatrix}$	$\begin{vmatrix} + & 39 \\ - & 22 \\ - & 83 \\ - & 17 \end{vmatrix}$	$egin{array}{c} +12 \\ -14 \\ -24 \\ +18 \\ +19 \\ \end{array}$	9 11 5	23.01 22.96 23.21 22.57 23.89	70 70 70
	5 6 7 8 9		21.5280   17 20.9603   23 24.1300   17	.0240 .9380  -	$   \begin{array}{r}     -62 \\     -19 \\     +35 \\     +57 \\     -135   \end{array} $	$egin{array}{c}4 \6 \ -2.2 \ \end{array}$	$ \begin{vmatrix} -1.1 \\ -1.0 \\2 \\ -1.8 \\9 \end{vmatrix} $	40 37 14.59 40 33 47.07	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} + & 5 \\ + & 2 \\ - & 9 \end{vmatrix}$	- 11 - 19 - 12 - 58 - 18	$     \begin{array}{r}       +10 \\       -3 \\       -1 \\       +4 \\       -10     \end{array} $	6 6	23,38 22,97 22,27 23,22 23,49	70 70 70
	II 2 4 5 6		21.7467 19 21.2400 18 20.1957 20	.5137  -	$^{+}$ 11 $^{+}$ 1 $^{+}$ 2	$\begin{vmatrix}8 \\ + .8 \\ +1.2 \end{vmatrix}$	$\begin{vmatrix} +1.0 \\ +1.7 \\ + .5 \end{vmatrix}$		$ \begin{array}{rrr} + & 56.49 \\ - & 57.41 \\ - & 12.30 \end{array} $	$\begin{vmatrix} - & 3 \\ + & 3 \\ - & 0 \end{vmatrix}$	$\begin{vmatrix} + & 35 \\ + & 26 \end{vmatrix}$	$\begin{bmatrix} -3 \\ +3 \\ -2 \\ 0 \\ -17 \end{bmatrix}$	6 7 8	22.93 22.36 22.77 22.39 22.90	72 72 72
uly	II 2	D	20.1890 22 21.0497 23 12.0237 28	.3063  -	+ 44 + 21	$egin{array}{c}4 \\ + .6 \\ -1.0 \\ +3.3 \\1 \end{array}$	$egin{array}{c}8 \\ +.2 \\ -1.5 \\ +1.5 \\ +.3 \end{array}$	40 35 25.96 40 37 19.89 40 43 13.66	$ \begin{array}{r} + & 56.51 \\ - & 57.17 \\ - & 6 51.01 \end{array} $	$\begin{vmatrix} - & 3 \\ + & 3 \\ + & 24 \end{vmatrix}$	$egin{bmatrix} -&18\ +&12\ -&40\ +&72\ +&2 \end{bmatrix}$	$     \begin{array}{r r}                                    $	6 7 9	23.03 22.64 22.40 23.55 23.24	75 72 70 69
	3 4 5 6		14.2653  25  21.6767  17	.7103 <sup>ii</sup> 0440 <sup>ii</sup> 315745476940	- 21	5  + .6	$ \begin{array}{c c}7 \\ -1.8 \\8 \\ +.1 \\ -1.2 \end{array} $	40 26	$+10\ 17.81 + 4\ 39.38 - 1\ 46.72$	$\begin{vmatrix} + & 92 \\ - & 16 \\ + & 6 \end{vmatrix}$	$\begin{vmatrix} - & 18 \\ + & 12 \end{vmatrix}$	$  \stackrel{+}{+} 19 \\   + 9 \\   - 3$	6 7 6	22.45 23.18 23.03 23.29 22.55	69 68

1005	<sub>Gu</sub>	_				Let	els.			Correc	tions.				Ther.
1895.	Star.	P	Micro	meter.	<i>c</i>	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	Z	r	Mer	Latitude.	mom.
July 9	III 8 9 IV 1 2 3	D	22.4037 26.9293 19.8273 21.5510 12.6893	16.4300 12.4327 17.8827 22.9260 28.8013	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} +1.6 \\3 \\ -3.3 \end{vmatrix}$	$egin{array}{c} +1.6 \\ + .2 \\6 \\ -2.7 \\6 \end{array}$	40 33 51.56 40 42 28.86 40 37 12.07 40 36 58.27 40 29 34.94	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{r}  - & 9 \\  + & 22 \\  + & 3 \\  + & 2 \\  - & 23 \end{array} $	$egin{pmatrix} + & 40 \\ + & 28 \\ - & 12 \\ - & 87 \\ + & 2 \end{bmatrix}$	$egin{array}{c} + 4 \ -10 \ - 2 \ - 2 \ +12 \ \end{array}$	5 13	0 / // 40 36 22.94 22.85 22.96 22.67 22.61	68.1 63.6 64.0
	4 5 6 7 8		22.9277 12.4733 30.6843iv 14.0257 27.8570	17.3900 29.0767 11.6910 <sup>ii</sup> 28.6473 11.4503	$     \begin{array}{r}       + 7 \\       +110 \\       - 9 \\       +171 \\       - 50     \end{array} $	$\begin{bmatrix} .0 \\9 \\ +1.7 \end{bmatrix}$	$egin{bmatrix}4 \\ -1.3 \\ +.1 \\ +1.7 \\5 \end{bmatrix}$	40 38 42.38 40 29 22.33 40 28 21.38 40 30 12.25 40 43 18.07	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{array}{c} + & 8 \\ - & 24 \\ +1.00 \\ - & 21 \\ + & 24 \\ \hline \end{array}$	$\begin{array}{rrrr} - & 11 \\ - & 16 \\ - & 13 \\ + & 49 \\ - & 14 \end{array}$	$     \begin{array}{r}       -5 \\       +12 \\       +13 \\       +10 \\       -13     \end{array} $		22.35 22.23 22.69 22.86 23.36	63.6 63.2 62.9
July 10	9 10 11 III 1 2	R	17.0430 6.2153 <sup>ii</sup> 27.9793	22.7583 26.5627 33.5000iv 11.7290 32.5703iv	$\frac{-9}{-22}$	$\begin{vmatrix} -1.1 \\ +1.8 \\ -5.3 \end{vmatrix}$	$\left  { +3.1 \atop + .2 \atop1 \atop + .7 \atop + .7 \atop + .1 } \right $	40 37 58.95 40 40 24.22 40 24 51.80 40 43 13.86 40 46 52.08	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} + & 6 \\ + & 14 \\ + & 88 \\ + & 24 \\ - & 91 \end{vmatrix}$	$egin{pmatrix} + & 78 \\ - & 15 \\ + & 27 \\ + & 17 \\ - & 8 \end{bmatrix}$	$ \begin{array}{r} -3 \\ -7 \\ +20 \\ -15 \\ -25 \end{array} $	11 6 6 9 11	22.82 23.10 28.13 23.35 23.32	61.9 61.8* 60.9 62.6
	3 4 5 6 7	•		33.0730 <sup>iv</sup> 32.6333 <sup>iv</sup> 14.8890 23.0333 20.0600		$egin{array}{c} + .2 \\4 \\ + .2 \\ \end{array}$	$\left  { \begin{array}{c} + \ .1 \\ - \ .4 \\ + \ .4 \\ + \ .8 \\ + 1.4 \end{array}} \right $	40 26 5.09		$egin{bmatrix} + & 92 \\ + & 92 \\ - & 16 \\ + & 6 \\ + & 4 \end{bmatrix}$	$egin{pmatrix} + & 19 \\ - & 2 \\ - & 1 \\ + & 13 \\ + & 47 \end{bmatrix}$	$ \begin{vmatrix} +18 \\ +19 \\ +9 \\ -3 \\ -2 \end{vmatrix} $	5 6 7 6 6	22.99 22.94 22.64 23.10 22.16	62.0 61.1 60.4 60.0
July 12	8 9 III 1 2 3		18.6297 13.0013 12.9390 34.2687iv 33.3723iv	24.5760 27.4973 29.1983 9.4357 ii 8.7760 ii		$\begin{vmatrix} +1.7 \\ +.8 \\ .0 \end{vmatrix}$	$egin{array}{c} + .9 \\ +1.6 \\ + .2 \\ .0 \\ -1.0 \\ \end{array}$	40 33 51.84 40 42 29.24 40 43 14.29 40 46 52.52 40 25 59.81	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$egin{bmatrix} -&9\\ +&22\\ +&24\\ -&91\\ +&92 \end{bmatrix}$	$egin{pmatrix} + & 21 \\ + & 48 \\ + & 15 \\ 0 \\ - & 45 \end{bmatrix}$	$egin{array}{c} + 4 \\ -10 \\ -15 \\ -25 \\ +18 \\ \hline \end{array}$	6 5 9 11 5	22.64 23.25 23.07 23.33 22.58	59.3 66.8
	4 5 6 7 8		34.8713 <sup>iv</sup> 13.8503 21.9190 18.1017 23.8583	10.5027 <sup>ii</sup> 24.8830 17.6607 20.3673 17.9020	$     \begin{array}{r}     +102 \\     -62 \\     -8 \\     -15 \\     +47     \end{array} $	$\begin{vmatrix}3 \\ + .8 \\ + .1 \end{vmatrix}$	$\begin{array}{c c} -1.0 \\6 \\ -1.1 \\ +.1 \\ -2.0 \end{array}$	40 31 44.60	$ \begin{array}{r} + 438.82 \\ - 147.66 \\ - 57.25 \end{array} $	$\begin{vmatrix} + & 92 \\ - & 16 \\ + & 6 \\ + & 4 \\ - & 9 \end{vmatrix}$	$\begin{array}{rrrr} - & 16 \\ - & 12 \\ - & 1 \\ + & 3 \\ - & 48 \end{array}$	$     \begin{array}{r}       +19 \\       +9 \\       -3 \\       -2 \\       +4     \end{array} $	6 6 6 6	23.09 23.30 23.05 22.70 22.67	66.1 66.4 65.8
	IV 1 2 3 4		26.2900 21.3387 20.4257 28.3563 19.4160	11.7940 23.3067 19.0227 12.2670 24.9667	$     \begin{array}{r}       -120 \\       + 42 \\       - 2 \\       + 40 \\       +105     \end{array} $	$\begin{bmatrix} -1 & 6 \\ - & .5 \end{bmatrix}$	$ \begin{array}{c c} -1.2 \\ -1.5 \\ 0 \\ + .6 \end{array} $	40 42 29.70 40 37 12.77 40 36 58.99 40 29 35.72 40 38 43.09	$\begin{array}{c cccc} - & 6 & 6.25 \\ - & 49.87 \\ - & 35.47 \\ + & 6 & 46.96 \\ - & 2 & 20.62 \end{array}$	$egin{pmatrix} + & 22 \\ + & 3 \\ + & 2 \\ - & 23 \\ + & 8 \end{bmatrix}$	$ \begin{array}{rrrr}  & 43 \\  & 4 \\  & 44 \\  & 8 \\  & + 10 \end{array} $	+12	13	23.19 23.00 23.19 22.56 22.70	65.8 64.1 <i>a</i> 65.0 64.3
July 16	5 6 8 III 1 2		31.3050	29.7870 15.0590	$+67 \\ 0 \\ +225 \\ +450 \\ +20$	$\begin{vmatrix} +1.8 \\ + .4 \\6 \end{vmatrix}$	$\begin{vmatrix} .0 \\ +1.1 \\ + .5 \\ + .1 \\1 \end{vmatrix}$	40 29 23.11 40 28 22.15 40 43 18.79 40 43 15.30 40 46 53.56	$ \begin{array}{r} + 759.28 \\ - 655.87 \\ - 651.95 \end{array} $	$egin{bmatrix} -&24 \\ +1.00 \\ +&24 \\ +&24 \\ -&91 \end{bmatrix}$	$ \begin{array}{rrrr}  - & 5 \\  + & 43 \\  + & 13 \\  - & 8 \\  - & 19 \end{array} $	$     \begin{array}{r}       +12 \\       +13 \\       -13 \\       -15 \\       -25     \end{array} $	7 9	22.79 23.04 23.23 23.45 23.29	$64.3 \\ 64.3 \\ 65.3$
	3 4 7 8 9		5.8500 <sup>ii</sup> 22.7703 19.3490	30.4547iv 30.1907 v 20.4620 25.2287 27.0713	-75 + 33	5 5	$\begin{vmatrix} .0 \\3 \\ +.6 \end{vmatrix}$	40 26 1.03 40 26 6.84 40 37 21.16 40 33 53.75 40 42 31.04	$+10\ 15.31 \\ -58.45 \\ +228.98$	$\begin{vmatrix} + & 92 \\ + & 4 \\ - & 9 \end{vmatrix}$	$- 9 \\ - 12$	$^{+18}_{+19}_{-2}_{+4}_{-10}$	5 6 6 6 5	23.26 23.23 22.67 22.74 23.06	66.1 64.6
i	IV 1 2 3 4 5		18.2037 21.0527 16.8137 22.5293 12.2793	16.1787 22.5147 32.8353 16.9120 28.8373	$^{+24}_{+672}$ $^{-15}$	+ .5 3 4 + .5 5	$\begin{vmatrix} +1.2 \\6 \\2 \end{vmatrix}$	40 37 13.90 40 37 0.13 40 29 36.94 40 38 44.22 40 29 24.33	$     \begin{array}{r}         37.03 \\         + 646.83 \\         222.01     \end{array} $	+ 2	$\begin{vmatrix} - & 14 \\ + & 5 \end{vmatrix}$	$     \begin{array}{r}       -2 \\       -2 \\       +12 \\       -5 \\       +12     \end{array} $	11 7	23.02 23.31 23.59 22.39 22.90	64.4
	6 7 8 9 10		13.2600 27.1617 18.0097	11.7233 ii 27.8180 10.6780 21.8687 25.7617	$+67 \\ -156$	$egin{array}{c} -3\ 0\ +1.0\ +\ .7\ -\ .2\ -\ .7 \end{array}$	$\begin{bmatrix}6 \\9 \end{bmatrix}$	40 28 23.34 40 30 14.17 40 43 19.88 40 38 0.52 40 40 25 94	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	+ 6	$ \begin{array}{rrrr}  & - & 72 \\  & + & 32 \\  & + & 3 \\  & - & 14 \\  & - & 12 \end{array} $	$^{+10}_{-13}$	7 11	22.54 22.73 23.67 22.94 22.84	64.1

<sup>\*</sup> Hurried and e. e. f.

						Lev	els.	1/6   60		Correct	ions.	,		Latitude.	Ther-
1895.	Star.	P	Microme	eter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Lattrade.	mom.
July	IV11 12 III 1 2 3	D	13.2100 2 33.3750iv	4.1857iv 3.5750 9.5270 8.4653 ii 9.2313 ii	$     \begin{array}{r}       -25 \\       +192 \\       +41     \end{array} $	$egin{pmatrix} + .2 \\ + .7 \\ + .9 \\ \hline \end{pmatrix}$	$ \begin{array}{r}1 \\ -1.8 \\ +1.1 \\ -1.4 \\ -1.3 \end{array} $	40 24 53.44 40 41 37.31 40 43 15.79 40 46 54.07 40 26 1.63	$ \begin{array}{r} -5 14.98 \\ -6 53.09 \\ -10 29.99 \end{array} $	$\begin{vmatrix} + & 19 \\ + & 24 \\ - & 91 \end{vmatrix}$	- 3 - 20 + 25 - 3 - 32	$^{+20}_{-10}_{-15}_{-25}_{+18}$	6 7 9 11 5	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	64.0 69.8 68.6
	4 5 6 7 8		14.6930 2 22.0387 1 18.9940 2	8.1763 <sup>ii</sup> 5.6330 7.7177 1.5243 7.0163	$     \begin{array}{r}       + 13 \\       + 16 \\       - 6 \\       + 5 \\       - 2     \end{array} $	5 6 .0 -2.0 4	7 5 0 2 1	40 26 7.45 40 31 46.42 40 38 12.58 40 37 21.83 40 33 54.44	$egin{array}{l} +10\ 14.57 \\ +\ 4\ 36.68 \\ -\ 1\ 49.25 \\ -\ 58.94 \\ +\ 2\ 28.32 \end{array}$	+ 6	- 17 - 16 0 - 34 - 8	$     \begin{array}{r}       +19 \\       +9 \\       -3 \\       -2 \\       +4     \end{array} $	6 7 6 6 6	23.02 22.94 23.42 22.63 22.69	67.3 67.6
	9 IV 1 2 3 4	D	21.5750 2 17.8937 1 30.4107 1	3.4737 3.5943 6.4080 4.4193 93.7790	$     \begin{array}{r}       + 96 \\       + 48 \\       - 39 \\       + 335 \\       + 48     \end{array} $	$\begin{bmatrix}5 \\ -1.7 \\ -1.9 \end{bmatrix}$	$ \begin{vmatrix} -1.2 \\7 \\ -2.1 \\1 \\ +.2 \end{vmatrix} $	40 42 31.73 40 37 14.52 40 37 0.78 40 29 37.63 40 38 44.87	$\begin{array}{c} + 6 & 8.64 \\ - & 51.18 \\ - & 37.47 \\ + 6 & 45.22 \\ - 2 & 22.76 \end{array}$	$egin{bmatrix} + & 3 \\ + & 2 \\ - & 23 \end{bmatrix}$	- 6 - 17 - 54 - 32 - 15	$     \begin{array}{r}       -10 \\       -2 \\       -2 \\       +12 \\       -5     \end{array} $	5 13 11 7 10	23.20 23.31 22.88 22.49 22.09	66.4 63.9 63.5
	5 6 7 8 9		10.1543 ii 2 27.9000 1 10.9790 2	2.6387 29.0247 <sup>iv</sup> 3.3703 27.4700 7.6790		$\begin{vmatrix} +3.0 \\8 \\ -2.0 \end{vmatrix}$	$ \begin{array}{c c}2 \\ +1.3 \\3 \\5 \\8 \end{array} $	40 29 25.03 40 28 24.02 40 30 14.85 40 43 20.53 40 38 1.09	$\begin{array}{c} + 657.86 \\ + 757.18 \\ + 67.61 \\ - 656.72 \\ - 138.24 \end{array}$	$\begin{vmatrix} +1.00 \\ -21 \\ +24 \end{vmatrix}$	$egin{bmatrix} -&23\ +&64\ -&17\ -&38\ -&18 \ \hline \end{pmatrix}$	$^{+12}_{+13}_{+10}_{-13}_{-3}$	6 5 6 7 11	22.60 23.02 22.24 23.61 22.81	63.5 62.5 62.0
July 19	10 11 12 III 1 2	$\mathbf{R}$	33.7223iv 13.0230 2	5.2590 6.5180 <sup>ti</sup> 25.4820 4.2153 32.6903 <sup>iv</sup>	$-80 \\ +334$	$\begin{vmatrix} + .2 \\ -1.3 \\ -2.0 \end{vmatrix}$	$\begin{vmatrix} .0 \\1 \\6 \\1 \\ +.4 \end{vmatrix}$	40 40 26.56 40 24 54.04 40 41 37.89 40 43 16.02 40 46 54.29	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} + & 88 \\ + & 19 \\ + & 24 \end{vmatrix}$	$\begin{vmatrix} + & 17 \\ + & 1 \\ - & 28 \\ - & 33 \\ + & 13 \end{vmatrix}$	$     \begin{array}{r}       -7 \\       +20 \\       -10 \\       -15 \\       -25     \end{array} $	9	23.18 23.12 22.92 22.53 23.01	61.7 61.5 73.0 73.1
	3 4 5 6 7		19.5070 2			$ \begin{array}{c c} -1.6 \\2 \\ -1.0 \end{array} $	$egin{bmatrix} - & .6 \\ + & .1 \\ + & .1 \\ - & .3 \\ & .0 \end{bmatrix}$	40 26 1.80 40 26 7.72 40 31 46.69 40 38 12.88 40 37 22.14		$\begin{vmatrix} + & 92 \\ - & 16 \\ + & 6 \end{vmatrix}$	$ \begin{vmatrix} 0 \\ -24 \\ -1 \\ -20 \\ -3 \end{vmatrix} $	$ \begin{vmatrix} +18 \\ +19 \\ +9 \\ -3 \\ -2 \end{vmatrix} $	6 7	22.81 23.59 22.46 22.71 22.52	72.9 72.5 72.4
	8 9 IV 1 2 3	D	12.4827 2 19.5510 1 19.0267 2	22.3580 27.0873 17.5103 20.5213 27.8400	- 30 28 26 2 21	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{vmatrix} .0 \\1 \\ .0 \\4 \\ +.2 \end{vmatrix}$	40 33 54.76 40 42 32.05 40 37 14.83 40 37 1.10 40 29 37.96	$ \begin{array}{cccc} - & 6 & 9.23 \\ - & 51.54 \\ - & 37.79 \end{array} $	$egin{pmatrix} + & 22 \\ + & 3 \\ + & 2 \end{bmatrix}$	$egin{bmatrix} -&&3\\ -&&16\\ +&&13\\ -&&22\\ +&&20 \end{bmatrix}$	$egin{array}{c} +4 \\ -10 \\ -2 \\ -2 \\ +12 \\ \end{array}$	5 13 11	22.63 22.83 23.56 23.20 22.50	72.0 69.0 68.9
	4 5 6 7 8		13.1947 29.3150iv 11.9517	16.7307 29.6737 10.4323 <sup>ii</sup> 26.5033 11.6517	$ \begin{array}{c c} -22 \\ +207 \\ +1 \\ -98 \\ -15 \end{array} $	3 5 3	$\left  egin{array}{l} +2.4 \\ + \ .2 \\ - \ .2 \\ - \ .7 \\ -1.2 \end{array} \right $	40 38 45.19 40 29 25.37 40 28 24.37 40 30 15.18 40 43 20.86	$\begin{array}{c c} + 757.48 \\ + 6 7.71 \end{array}$	$ \begin{array}{c c} -24 \\ +1.00 \\ -21 \end{array} $	$\begin{vmatrix} + & 46 \\ - & 2 \\ - & 10 \\ - & 14 \\ - & 17 \end{vmatrix}$	$     \begin{array}{r r}         -5 \\         +12 \\         +13 \\         +10 \\         -13     \end{array} $	6 5 6	22.45 22.51 22.93 23.70 22.42	69.2
July 25	9 10 11 12 III 1		15.0010 5.5497 ii 24.7913	23.0897 24.6553 32.7537iv 12.3107 26.9563	— 14 — 55 —159	$ \begin{array}{c} + .9 \\ -1.6 \\ + .3 \\6 \\2 \end{array} $	+.3	40 38 1.38 40 40 26.87 40 24 54.34 40 41 38.18 40 43 17.03	-44.09 +1127.76	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	<b>— 9</b>	$ \begin{array}{c c} -3 \\ -7 \\ +20 \\ -10 \\ -15 \end{array} $	6 6 7	23.08 22.70 23.15 22.85 23.04	68.6 68.2 65.5
	2 3 4 5 6		33.6920iv 14.2367	7.7433 ii 9.0507 ii 9.4420 ii 25.1063 17.3993	$ \begin{vmatrix} + & 11 \\ + & 51 \\ + & 59 \\ - & 31 \\ - & 16 \end{vmatrix} $	$\begin{vmatrix} 1 & 0 \\ 0 & 0 \end{vmatrix}$	6	40 46 55.39 40 26 3.29 40 26 9.00 40 31 48.10 40 38 14.43	$+10\ 18.60  +10\ 13.35  +4\ 34.78$	$\begin{vmatrix} + & 92 \\ + & 92 \\ - & 16 \end{vmatrix}$	$\begin{vmatrix} + & 13 \\ - & 54 \\ - & 2 \\ - & 1 \\ - & 2 \end{vmatrix}$		5 6 7	22.66 22.50 23.50 22.87 23.17	65.6 65.1
	7 8 9 IV 1 2		23.6043   1 27.0430   1 20.5073   2	20.5780 17.8143 12.3773 22.6213 20.5603	- 18 + 37 + 38 + 28 + 18	$egin{array}{l} + .5 \\ + .2 \\ +1.4 \\ + .2 \\ -2.3 \\ \hline \end{array}$	$\begin{vmatrix} +1.1 \\ +.7 \\1 \\4 \\ -1.3 \end{vmatrix}$	40 33 56.41 40 42 33.73	$\begin{array}{r} + 2 26.50 \\ - 6 10.75 \\ - 53.58 \end{array}$	$\begin{vmatrix} - & 9 \\ + & 22 \\ + & 3 \end{vmatrix}$	$\begin{vmatrix} + & 14 \\ + & 21 \\ - & 2 \end{vmatrix}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	6 5	22.74 23.06 23.36 23.01 22.48	65.2 65.0 <i>a</i>

1895.	Star.	P	10	ım atam	c	Let	els.	1/5   6/		Correct	ions.			Takkada	Ther-
	but.		micro	meter.		A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom.
July 25	IV 3 4 6 7 8	R	29.4373 19.8973 10.6597 11 28.6550 12.4197	13.5297 25.5920 29.4570 <sup>iv</sup> 14.2217 29.0093	$     \begin{array}{r}     +204 \\     +137 \\     0 \\     +182 \\     +100     \end{array} $	$\begin{array}{c c} + .3 \\ +1.7 \\4 \end{array}$	$ \begin{array}{c c} -1.0 \\ +1.8 \\ + .9 \\ +1.0 \\ + .4 \end{array} $	40 29 39.77 40 38 46.87 40 28 26.22 40 30 17.01 40 43 22.51	$\begin{array}{r} + & 6 & 42.77 \\ - & 2 & 24.35 \\ + & 7 & 55.32 \\ + & 6 & 5.43 \\ - & 6 & 59.75 \end{array}$	$ \begin{array}{r}  - 23 \\  + 8 \\  +1.00 \\  - 21 \\  + 24 \end{array} $	$ \begin{array}{rrrr}  - & 16 \\  + & 28 \\  + & 39 \\  + & 6 \\  + & 13 \end{array} $	$     \begin{array}{r}       +12 \\       -5 \\       +13 \\       +10 \\       -13     \end{array} $	5 6	40 36 22.34 22.93 23.11 22.45 23.07	64.8 65.0
July 26	9 10 11 12 III 1		24.7970 25.5073 35.9090iv 13.8173 29.2993	20.8520 15.7847 8.8307 ii 26.3633 12.9080	$     \begin{array}{r}       + 98 \\       + 55 \\       + 146 \\       + 10 \\       + 158     \end{array} $	$\left  { +3.0 \atop .0} \right. + .6$	$egin{bmatrix} -\ .6\ +\ .7\ +\ .9\ +\ .7\ +2.0 \end{bmatrix}$	40 38 2.94 40 40 28.60 40 24 56.01 40 41 39.80 40 43 17.22	$\begin{array}{c} -1\ 40.00 \\ -4\ 5.99 \\ +11\ 25.09 \\ -5\ 17.27 \\ -6\ 54.88 \end{array}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{rrr}  & -10 \\  & +57 \\  & +11 \\  & +18 \\  & +19 \end{array} $	$     \begin{array}{r}       -3 \\       -7 \\       +20 \\       -10 \\       -15     \end{array} $	6	22.98 23.31 22.35 22.87 22.71	64.3 63.9 67.7
	3 4 5 6 7		6.1810 <sup>11</sup> 26.7430 17.9550	31.7020 <sup>iv</sup> 30.4230 <sup>iv</sup> 15.8850 22.3813 20.3713	$ \begin{array}{r}  - 20 \\  - 63 \\  + 124 \\  + 9 \\  + 33 \end{array} $	6 4 1	$ \begin{vmatrix} + .7 \\2 \\3 \\6 \\ + .5 \end{vmatrix} $	40 26 3.54 40 26 9.35 40 31 48.35 40 38 14.70 40 37 24.01	+10 18.54 $+10 12.83$ $+ 4 34.88$ $- 1 51.95$ $- 1 1.62$	$egin{array}{cccc} + & 92 \\ + & 92 \\ - & 16 \\ + & 6 \\ + & 4 \end{array}$	$ \begin{array}{cccc} + & 1 \\ - & 12 \\ - & 10 \\ - & 9 \\ + & 24 \end{array} $	+18  +19  +9  -3  -2	5 6 7 6 6	23.24 23.23 23.13 22.75 22.71	67.1 66.6 66.2
	8 9 IV 2 3 4	D	19.1297 12.4107 18.3900 11.3733 22.0520	24.8847 27.0937 19.9953 27.3597 16.3117	+101 - 34 - 12 - 87 - 43	$+ .4 \\ +1.4$	$egin{array}{c} + .6 \\8 \\ +1.3 \\ + .9 \\1 \end{array}$	40 33 56.69 40 42 34.01 40 37 3.02 40 29 40.06 40 38 47.14	$\begin{array}{r} + \ 2 \ 25.78 \\ - \ 6 \ 11.20 \\ - \ 40.56 \\ + \ 6 \ 44.02 \\ - \ 2 \ 25.04 \end{array}$	$ \begin{array}{rrr}  & 9 \\  + & 22 \\  + & 2 \\  \hline  & 23 \\  + & 8 \end{array} $	$ \begin{array}{ccccc}  & 7 \\  & 53 \\  & 23 \\  & & 34 \\  & & 0 \end{array} $	$^{+\ 4}_{-10}$ $^{-\ 2}_{+12}$ $^{-\ 5}$	6 5 11 7 10	22.41 22.45 22.80 [24.38] 22.23	65.3 63.4 61.9
	5 6 7 8 9		13.0350 30.8380iv 12.0357 27.1497 19.0470	29.4503 12.0330 ii 26.4800 10.5317 23.0023	+179 $-15$ $-92$ $-171$ $+35$	$egin{array}{c} -1.2 \\ +2.0 \\ +1.1 \end{array}$	$ \begin{array}{c c}1 \\ -1.0 \\ +.7 \\ +1.6 \\ .0 \end{array} $	40 29 27.52 40 28 26.50 40 30 17.30 40 43 22.88 40 38 3.18	$\begin{array}{r} + 655.54 \\ + 755.48 \\ + 65.02 \\ - 659.78 \\ - 140.11 \end{array}$	$egin{array}{c} -24 \\ +1.00 \\ -21 \\ +24 \\ +6 \end{array}$	- 3 - 32 + 41 + 38 - 11	+12 +13 +10 -13 - 3	6	22.97 22.84 22.68 23.66 23.10	62.1
July 28	10 11 12 III 1 2	${f R}$	25.5280 $27.9883$	12.9683 11.5790	$^{+127}_{-59}$ $^{-80}_{-32}$ $^{+153}$	$\begin{array}{c c}9 \\ + .3 \\ + .1 \end{array}$	$ \begin{array}{c c} -1.0 \\ -2 \\ -1.1 \\ +1.0 \\ +2.3 \end{array} $	40 40 28.87 40 24 56.21 40 41 40.04 40 43 17.65 40 46 56.04	<b>— 6 54.86</b>	$   \begin{array}{r}     + 14 \\     + 88 \\     + 19 \\     + 24 \\     - 91   \end{array} $	- 45 - 17 - 9 + 14 + 40	$-7 +20 -10 \\ -15 \\ -25$	6 6 7 9 11	22.79 23.21 22.72 23.11 23.26	61.7 62.3 66.9
	3 4 5 6 7		33.4233 <sup>1</sup> v 32.9283 <sup>1</sup> v 14.5187 21.3193 17.8430	9.0243 ii 8.7337 ii 25.3700 16.8550 20.3017		$+1.4 \\ -0.7 \\ +2.4$	$egin{array}{c} + .6 \\ + .3 \\ -1.2 \\ +1.7 \\ -1.1 \end{array}$	40 26 4.07 40 26 9.89 40 31 48.89 40 38 15.28 40 37 24.61	$\begin{array}{c} +10\ 17.09 \\ +10\ 11.88 \\ +\ 4\ 34.38 \\ -\ 1\ 52.79 \\ -\ 1\ \ 2.12 \end{array}$	$egin{pmatrix} + & 92 \\ + & 92 \\ - & 16 \\ + & 6 \\ + & 4 \end{bmatrix}$	$\begin{array}{rrr} - & 12 \\ + & 26 \\ - & 26 \\ + & 60 \\ - & 11 \end{array}$	$     \begin{array}{r}       +18 \\       +19 \\       +9 \\       -3 \\       -2     \end{array} $	6 7	22.19 23.20 23.01 23.18 22.46	65.9 65.5
	8 9 IV 1 2 3	D	23.8307 27.1347 18.1193 20.7133 29.4610	18.0833 12.4417 15.9580 19,1380 13 5807	$egin{pmatrix} + & 49 \\ - & 29 \\ - & 54 \\ - & 3 \\ + 209 \end{matrix}$	$\begin{vmatrix} + & .1 \\ - & .4 \\ -2.2 \end{vmatrix}$	$ \begin{array}{r} -1.1 \\ -1.4 \\6 \\ -2.3 \\ .0 \end{array} $	40 33 57.31 40 42 34.62 40 37 17.21 40 37 3.58 40 29 40.66	- 6 11.46 - 54.52 - 39.83	$  \begin{array}{cccccccccccccccccccccccccccccccccccc$	- 27 - 16 - 14 - 65 - 8		13 11	22.51 23.17 22.69 23.21 22.63	64.9 63.1 61.9
	4 5 6 7 8		27.5460	26.0357 11.6823 30.3250 <sup>1</sup> 13.1203 27.7483	+ 42	<b>—</b> .4	1	40 38 47.70 40 29 28.13 40 28 27.11 40 30 17.90 40 43 23.47	$\begin{array}{r} + 654.64 \\ + 754.55 \\ + 6 4.89 \end{array}$	$ \begin{array}{c c} -24 \\ +1.00 \\ -21 \end{array} $	$ \begin{array}{rrr}  & 26 \\  & 8 \\  & + 21 \\  & - 73 \\  & - 35 \end{array} $		6 5 6	22.64 22.63 23.05 22.01 23.63	61.2
July 29	9 10 11 12 III 1		22.0993 24.4153 35.0520 12.9930 11.4227	18.1223 14.6590 7.9687 25.5327 27.8497	-39 + 95 - 80	$ \begin{array}{r}2 \\ +2.3 \\ -1.2 \\ -1.1 \\ +.8 \end{array} $	$egin{array}{c} -1.1 \\ + .6 \\ + .1 \\ -1.8 \\ + .5 \end{array}$	40 24 56.79	$\begin{array}{r} -4 & 6.61 \\ +11 & 25.09 \\ -5 & 16.89 \end{array}$	$\begin{vmatrix} + & 14 \\ + & 88 \\ + & 19 \end{vmatrix}$	- 17 + 44 - 18 - 40 + 19	$^{+20}_{-10}$	6 6 7	23.09 23.38 22.84 23.41 23.00	61.0 60.5 70.4
	4 5 6 7 8	R	5.2773 <sup>si</sup> 25.6340 18.7197 20.8363 17.8650	29,4847iv 14.8437 23,1843 18.3530 23,6070	+ 22  + 37  - 10	$ \begin{array}{r} -1.5 \\2 \\ -1.0 \\ +1.6 \\5 \end{array} $	.0	40 26 10.14 40 31 49.17 40 38 15.59 40 37 24.92 40 33 57.62	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} - & 16 \\ + & 6 \\ + & 4 \end{vmatrix}$	$ \begin{array}{c cccc}  & 31 \\  & 5 \\  & 21 \\  & + 26 \\  & & 5 \end{array} $	- 3 - 2	6 6	22.89 22.03 22.48 22.49 22.87	<b>69.6</b> 69.3

400-		Ī.				Le	vels.			Correct	ions.		<u> </u>		Ther.
1895.	Star	P	Mic	rometer.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	l	r .	Mer	Latitude.	mom.
July 29	III	1	12.4187 18.0893 18.5970 11.7543 20.4740	27.1360 20.2773 20.2297 27.6473 14.7033	- 31 - 15 - 8 - 43 -121	$\begin{vmatrix} + .8 \\ + .8 \\ +1.0 \end{vmatrix}$	$\left  { \begin{array}{c} + \ .1 \\ + \ .6 \\ + \ .4 \\ + \ .8 \\ + \ .3 \end{array}} \right $	40 37 17.51 40 37 3.88 40 29 40.98	$\begin{array}{c} - & 6 & 12.07 \\ - & 55.29 \\ - & 41.27 \\ + & 6 & 41.77 \\ - & 2 & 25.62 \end{array}$	$egin{array}{c c} + & 3 \\ + & 2 \end{array}$	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$-2 \\ -2$	13 11 7	0 36 22.97 22.56 22.90 22.97 22.65	68.4 66.9 <i>a</i> 66.6 <i>a</i>
		5 6 7 8	12.1127 30.2137 <sup>1</sup> 14.2620 29.5047 17.1607	28.4800 11.4463 ii 28.6530 12.8857 21.1657	$   \begin{array}{r}     + 43 \\     - 7 \\     +184 \\     +173 \\     - 31   \end{array} $	+ .7  + .5	$ \begin{array}{c} .0 \\1 \\ +1.0 \\3 \\ +1.1 \end{array} $	40 28 27.44	$\begin{array}{r} + 653.98 \\ + 754.55 \\ + 6 4.37 \\ - 70.68 \\ - 141.20 \end{array}$	+ 24	$ \begin{array}{cccc} + & 6 \\ - & 19 \\ + & 24 \\ + & 4 \\ + & 20 \end{array} $	$egin{array}{c} +12 \\ +13 \\ +10 \\ -13 \\ -3 \end{array}$	6 5 6 7	22.44 22.98 22.78 23.30 23.09	66.3 65.6 <i>a</i>
July 30	III :	2	6.9523 26.9470 30.7697	25.6880 <sup>iv</sup> 33.9983 <sup>iv</sup> 14.3907 14.3887 i 32.4030 <sup>iv</sup>	$^{+\ 31}_{+\ 73}_{+369}$	$egin{array}{c} -\ .6 \\ +\ .4 \\ +1.1 \\ -1.9 \\ -\ .7 \end{array}$	$egin{array}{c} + .6 \\ +1.1 \\ +2.2 \\8 \\8 \end{array}$	40 41 40.80	$egin{array}{ccccc} -4 & 5.85 \\ +11 & 23.98 \\ -5 & 17.69 \\ -6 & 55.16 \\ -10 & 31.95 \end{array}$	$ \begin{array}{rrr} -1.14 \\ + 88 \\ + 19 \\ + 24 \\ - 91 \end{array} $	$egin{array}{cccc} -&2 \\ +& 20 \\ +& 45 \\ -& 40 \\ -& 21 \end{array}$	$     \begin{array}{r}         -7 \\         +20 \\         -10 \\         -15 \\         -25     \end{array} $	6 6 7 9	22.71 22.41 23.72 22.71 23.29	65.6 d a 66.7 65.2
	1	5		32.1627iv 7.8233 ii 25.1660 18.7677 21.5853	$-\ _{22}^{4}$	$+ .9 \\ +1.3$	+1.7  + .1  + .3  -2.9 1	40 31 49.45	$+10\ 11.31$	$egin{array}{cccc} + & 92 \ + & 92 \ - & 16 \ + & 6 \ + & 4 \ \end{array}$	$   \begin{array}{r}     + & 31 \\     + & 16 \\     + & 25 \\     - & 56 \\     - & 14   \end{array} $	$     \begin{array}{r r}                                    $	5 6 7 6 6	22.53 23.08 22.67 22.81 22.62	64.6 62.1
July 31	III	B 1 1 2 3	22.5443 27.2777 11.9273 32.4507i 33.5893i		-15 + 20 - 3	$ \begin{array}{r}1 \\ +.3 \\2 \\ +1.4 \\ -2.2 \end{array} $	$\begin{array}{c} + .3 \\ + .1 \\2 \\ + .4 \\ -2.1 \end{array}$	40 43 18.30	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$egin{array}{cccc} - & 9 \ + & 22 \ + & 24 \ - & 91 \ + & 92 \ \end{array}$	$egin{pmatrix} + & 2 \ + & 6 \ - & 5 \ + & 27 \ - & 62 \ \end{pmatrix}$	$egin{pmatrix} + & 4 & \\ -10 & \\ -15 & \\ -25 & \\ +18 & \end{bmatrix}$	6 5 9 11 5	22.76 22.64 22.67 22.88 22.29	61.2 61.2 64.0 63.5
	£ 6	3	5.9393 i 27.1520 19.2770 19.8650 16.7953	30.1293iv 16.3903 23.7530 17.3727 22.5093	$^{+165}_{+60}_{-26}$	$\begin{array}{c c} .0 \\8 \\ + .9 \end{array}$	$ \begin{array}{r} -1.1 \\4 \\1 \\3 \\ + .2 \end{array} $	40 26 10.73 40 31 49.73 40 38 16.20 40 37 25.55 40 33 58.27	$\begin{array}{c cccc} \dot{+} & 4 & 32.55 \\ \hline - & 1 & 53.34 \\ \hline - & 1 & 2.96 \end{array}$	+ 6	$ \begin{array}{c cccc}  & 5 \\  & 14 \\  & 10 \end{array} $	$     \begin{array}{r}         +19 \\         +9 \\         -3 \\         -2 \\         +4     \end{array} $	6 7 6 6 6	23.05 22.23 22.81 22.77 22.85	62.6 62.1
	IV 1	R	12.6013 17.8257 20.8037 29.1533 19.4473	27.3360 20.0173 19.1683 13.2840 25.2150	$-\frac{21}{0}$	$ \begin{array}{r}9 \\ +.7 \\ -1.0 \\ -1.6 \\ -1.0 \end{array} $	$ \begin{array}{c}2 \\ + .1 \\6 \\ -1.1 \\ .0 \end{array} $	40 42 35.60 40 37 18.13 40 37 4.53 40 29 41.67 40 38 48.66	$egin{array}{cccc} - & 6 & 12.57 \ - & 55.37 \ - & 41.35 \ + & 6 & 41.71 \ - & 2 & 26.14 \ \end{array}$	+ 2		$-\begin{array}{c c} 2 & 1 \\ - & 2 & 1 \end{array}$	7	23.03 23.02 23.06 22.95 22.49	61.9 59.8 59.9
	5 6 7 9 10		28.2360 11.2867 ii 26.8360 22.6643 25.9500	12.4320 18.6537	+ 23	-2.3	$ \begin{array}{r}4 \\3 \\ -1.8 \\ .0 \\ + .8 \end{array} $	40 29 28.86 40 28 28.13 40 30 18.91 40 38 4.52 40 40 30.36	$egin{pmatrix} + & 7 & 53.61 \ + & 6 & 4.11 \ - & 1 & 41.47 \end{bmatrix}$	$ \begin{array}{c c} +1.00 \\ -21 \\ +6 \end{array} $	$\begin{array}{cccc} + & 7 \\ - & 60 \\ - & 3 \end{array}$	$egin{array}{c c} +13 \\ +10 \\ -3 \\ 1 \end{array}$	6 5 6 1 6	21.69 22.99 22.37 23.16 23.28	59.8 <i>a</i> 59.6 59.6 59.2
Aug.	11 12 III 1 2 3	R	13.1020 29.9237 7.5200 <sup>ii</sup>	25.7027	$egin{array}{cccc} -66 \ +243 \ +&1 \end{array}$	-1.35	-1.1 + 1.40	40 24 57.69 40 41 41.41 40 43 18.79 40 46 57.26 40 26 5.57	$ \begin{array}{c cccc} -5 & 18.46 \\ -6 & 56.40 \\ -10 & 32.94 \end{array} $	$ \begin{array}{c c} + & 19 \\ + & 24 \\ - & 91 \end{array} $	$-\begin{array}{cc} - & 35 \\ + & 10 \\ 0 \end{array}$	$     \begin{array}{r r}     -10 \\     -15 \\     -25 \\     \end{array} $	9	22.85 22.76 22.67 23.27 22.72	59.3 72.5 71.9
	4 5 6 7 8		13.2980 19.5040 20.7173	14.9607	123	$\frac{-0.6}{+0.8}$	$ \begin{array}{c c} -1.3 \\ +1.5 \\ + .5 \end{array} $		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	<b>—</b> 16	$egin{pmatrix} - & 26 \ + & 32 \ + & 13 \ \end{bmatrix} -$	$   \begin{array}{c c}     + 9 \\     - 3 \\     - 2   \end{array} $	6 7 6 6 6	22.92 23.18 22.79 22.51 22.99	71.0
Aug.	9 III 1 2 3 4	D	11.5720 32.8703iv 33.8010iv	10.2850 28.0480 7.8070 ii 9.4620 ii 29.5287iv	$     \begin{array}{r}       -297 \\       -26 \\       +16 \\       +62 \\       -91     \end{array} $	_ 2	$\begin{array}{c c} + .7 \\ + 2.4 \\4 \end{array}$	40 43 19.04  -	$-10 \ 33.81   +10 \ 15.61  $	— 91	$\begin{array}{c c} + & 6 \\ + & 56 \\ - & 29 \end{array}$	$     \begin{array}{c c}       -15 \\       -25 \\       +18     \end{array}   $	5 9 1 5 6	23.06 22.72 23.25 22.21 23.01	70.4 75.4 75.5

205	α.					Let	vels.			Correct	ions.				Then
395.	Sta r.	P	Micro	meter.	C	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom
ug.	III 5 6 9 III 1 2		18.2700 12.2580 28.8163	15.3230 22.8403 27.0543 12.3570 29.8560iv	$egin{array}{c} + & 64 \\ + & 23 \\ - & 47 \\ + & 81 \\ - & 118 \\ \hline \end{array}$	+1.6	$ \begin{array}{r} -1.6 \\ +3.3 \\ -2. \\ +8 \\ +.1 \end{array} $	40 31 50.83 40 38 17.43 40 42 36.97 40 43 19.29 40 46 57.82	$egin{array}{c} + 431.94 \\ - 155.63 \\ - 614.03 \\ - 656.41 \\ - 1033.45 \end{array}$	$egin{bmatrix} + & 6 \ + & 22 \ + & 24 \end{matrix}$	$ \begin{array}{rrrr}  & 31 \\  + & 67 \\  - & 4 \\  - & 1 \\  - & 3 \end{array} $	$     \begin{array}{r}       + 9 \\       - 3 \\       -10 \\       -15 \\       -25     \end{array} $	7 6 5 9	40 36 22.46 22.56 23.07 23.05 23.29	74.4 75.5
	3 4 5 6 7		7.7350 <sup>ii</sup> 27.6803	31.6967 <sup>iv</sup> 31.8370 <sup>iv</sup> 16.9713 22.9150 18.2863	$egin{array}{ccccc} -&18 \ -&7 \ +220 \ +&25 \ -&10 \ \end{array}$	$\left  { \begin{array}{c} + .8 \\ + .3 \\ -1.6 \end{array}} \right $	$\begin{vmatrix} +1.0 \\ + .4 \\ +1.0 \\4 \end{vmatrix}$	40 26 6.30 40 26 12.13 40 31 51.20 40 38 17.85 40 37 26.91	+10 9.44	$\begin{vmatrix} -&16\\+&6 \end{vmatrix}$	+ 46 + 18 + 18 - 25 - 10	$^{+18}_{+19}_{+9}_{-3}_{-2}$	5 6 7 6 6	22.68 22.92 22.73 22.69 22.46	75. 75.
	8 9 IV 1 2 3	D	13.3140 19.7253 17.1910	23.0640 28.1257 17.4857 18.9167 27.6907	$egin{pmatrix} +&10 \\ +&92 \\ -&27 \\ -&30 \\ -&27 \\ \hline \end{pmatrix}$	$\left  { \begin{array}{c}2 \\ +.7 \\ -1.5 \end{array}} \right $	$egin{bmatrix}3 \\ + .6 \\ + .4 \\9 \\1 \end{bmatrix}$	40 34 0.06 40 42 37.43 40 37 20.00 40 37 6.48 40 29 44.01	$ \begin{array}{rrr}  & 6.14.77 \\  & 56.56 \\  & 43.56 \end{array} $		$egin{pmatrix} - & 7 \\ + & 4 \\ + & 16 \\ - & 35 \\ - & 9 \end{bmatrix}$	$egin{array}{c} + 4 \\ -10 \\ -2 \\ -2 \\ +12 \end{array}$	6 5 13 11 7	22.88 22.87 23.74 22.68 23.21	74. 72. 71.
	4 5 6 7 9		29.9550iv 14.4637	14.8597 28.7410 11.3153 <sup>ii</sup> 28.7243 20.5760	$     \begin{array}{r}     -112 \\     +84 \\     -6 \\     +198 \\     -53     \end{array} $	$     \begin{array}{r r}       -1.6 \\       -1.4 \\       +1.8     \end{array} $	$ \begin{array}{c c}6 \\ -1.4 \\5 \\ +1.1 \\ +1.8 \end{array} $	40 38 50.67 40 29 31.39 40 28 30.37 40 30 21.14 40 38 6.43		<b>—</b> 21	$egin{array}{cccc} -&4 & & & \\ -&43 & & & \\ -&29 & & & \\ +&43 & & & \\ &&0 & & \end{array}$	$     \begin{array}{r}       -5 \\       +12 \\       +13 \\       +10 \\       -3     \end{array} $	10 6 5 6 11	22.84 22.57 22.58 22.62 23.15	70. 69.
1g. 8	III 1 2 3 4 5	D	11.4463 33.7603iv 33.1600iv 33.8323iv 13.4863	27.9533 8.6987 <sup>ii</sup> 8.8633 <sup>ii</sup> 9.7300 <sup>ii</sup> 24.2260	+ 39	$\begin{vmatrix} + .9 \\1 \\1 \end{vmatrix}$	$\begin{vmatrix} +3.1 \\ + .9 \\1 \\8 \\ +1.1 \end{vmatrix}$	40 43 19.43 40 46 57.97 40 26 6.49 40 26 12.32 40 31 51.39	$\begin{array}{c} -657.29 \\ -103387 \\ +1014.48 \\ +109.63 \\ +431.30 \end{array}$	$\begin{vmatrix} - & 91 \\ + & 92 \\ + & 92 \end{vmatrix}$	$egin{pmatrix} + & 65 \\ + & 26 \\ - & 3 \\ - & 11 \\ + & 6 \end{bmatrix}$	$-15 \\ -25 \\ +18 \\ +19 \\ +9$	9 11 5 6 7	22.97 23.31 22.09 23.01 22.75	74 73 72
ıg. 0	6 7 8 9 III 1	$\mathbf{R}$	21.7827 18.2730 21.6503 25.1300 28.9383	17.2353 20.8177 16.0040 10.2870 12.4570	$     \begin{array}{r}       -20 \\       -10 \\       -59 \\       -297 \\       +99 \\    \end{array} $	$\begin{vmatrix} + .1 \\ .0 \\ .0 \end{vmatrix}$	$egin{bmatrix}6 \\ .0 \\1 \\9 \\ + .2 \end{bmatrix}$	40 38 18.06 40 37 27.13 40 34 0.29 40 42 37.67 40 43 19.76	$\begin{array}{c} -154.94 \\ -14.32 \\ +222.63 \\ -614.58 \\ -657.01 \end{array}$	$\begin{vmatrix} + & 4 \\ - & 9 \end{vmatrix}$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{ccc} -3 & -2 & +4 & -10 & -15 & -$	6 6 5 9	23.14 22.90 22.92 23.12 22.97	72 71 79
	2 3 4 5 6		6.6493 ii	31.4837iv 30.9437iv 29.7527iv 16.6543 22.6357	-49 $-47$ $-83$ $+187$ $+14$	$\begin{vmatrix} +1.0 \\ + .3 \\ -1.2 \end{vmatrix}$	$egin{bmatrix}6 \\ +1.4 \\ + .3 \\8 \\ + .1 \end{bmatrix}$	40 46 58.32 40 26 6.91 40 26 12.75 40 31 51.83 40 38 18.55	+10 8.92	$\begin{array}{rrrr} - & 91 \\ + & 92 \\ + & 92 \\ - & 16 \\ + & 6 \end{array}$	$ \begin{array}{rrrr}  & 22 \\  & 34 \\  & 9 \\  & 29 \\  & 11 \end{array} $	$     \begin{array}{r}     -25 \\     +18 \\     +19 \\     +9 \\     -3   \end{array} $	11 5 6 7 6	23.48 22.61 22.93 22.79 22.55	78 78 78
	7 8 9 IV 1 2	R	$\begin{array}{c} 16.2580 \\ 13.1953 \\ 22.0053 \end{array}$	18.8587 21.8897 28.0190 24.2823 19.7007	$egin{pmatrix} -&1 \\ -&46 \\ +&78 \\ +&65 \\ +&7 \end{bmatrix}$	$\begin{vmatrix}7 \\ -1.7 \\ +.8 \end{vmatrix}$	$ \begin{array}{c c}7 \\ +1.2 \\2 \\ +.1 \\ -1.2 \end{array} $	40 37 27.63 40 34 0.81 40 42 38.19 40 37 20.72 40 37 7.24		$\begin{vmatrix} - & 9 \\ + & 22 \\ + & 3 \end{vmatrix}$	$ \begin{array}{rrr}  - & 7 \\  + & 4 \\  - & 30 \\  + & 14 \\  - & 52 \end{array} $	$     \begin{array}{r}       -2 \\       +4 \\       -10 \\       -2 \\       -2     \end{array} $		22.55 23.15 23.02 23.26 23.04	78 78 75
	3 4 5 6 7		16.1543	13.8730 22.0657 10.8070 29.7127 <sup>1</sup> 13.7860	$^{+240}_{-47}$ $^{-154}_{-4113}$	-1.1	$ \begin{array}{r}7 \\ +.2 \\ -1.5 \\ .0 \\ -1.8 \end{array} $	40 29 44.64 40 38 51.94 40 29 32.24 40 28 31.23 40 30 21.99	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{vmatrix} - & 15 \\ - & 19 \\ + & 24 \end{vmatrix}$	$+12 \\ -5 \\ +12 \\ +13 \\ +10$	6 5	22.70 22.06 22.18 22.63 22.58	75 74
	8 9 10 11 12		11.0993 21.5877 24.8980 33.6720iv 13.1563	27.8903 17.4640 14.9930 6.7197 ii 25.8540	-19 $-4$ $+11$	$ \begin{array}{c c}6 \\5 \\ +1.6 \\7 \\3 \end{array} $	$egin{array}{c} .0 \\ -1.4 \\ + .5 \\ -1.0 \\ -1.2 \end{array}$	40 38 7.13 40 40 33.31	-144.22 $-410.46$ $+1121.56$	$\begin{vmatrix} + & 6 \\ + & 14 \\ + & 88 \end{vmatrix}$	$ \begin{array}{rrrrr}  - & 9 \\  - & 26 \\  + & 32 \\  - & 24 \\  - & 20 \end{array} $	$     \begin{array}{r}       -13 \\       -3 \\       -7 \\       +20 \\       -10     \end{array} $	7 11 6 6 7	23.06 22.79 23.30 23.00 23.20	74 74 74
1g. 12	III 1 2 3 4 5		32.8140 <sup>iv</sup> 33.1803 <sup>iv</sup> 32.1783 <sup>iv</sup>	30.6710 7.7263 <sup>ii</sup> 8.8807 <sup>ii</sup> 8.0790 <sup>ii</sup> 23.8073	$^{+}_{+}^{12}_{40}_{+}$	$ \begin{array}{c c}7 \\ -1.5 \\ -1.7 \\ -1.1 \\1 \end{array} $	$ \begin{array}{c c}3 \\2 \\ -1.6 \\ -1.2 \\ +2.2 \end{array} $	40 46 58.70   40 26 7.38   40 26 13.22	$ \begin{array}{r} -10 \ 34.42 \\ +10 \ 14.56 \\ +10 \ 9.40 \end{array} $	$\begin{vmatrix} - & 91 \\ + & 92 \\ + & 92 \end{vmatrix}$	- 33	$ \begin{array}{r} -15 \\ -25 \\ +18 \\ +19 \\ +9 \end{array} $	6	22.84 22.97 22.61 23.46 22.91	77 76

40:-		1_				Le	vels.			Correc	tions.			T	Ther-
1895.	Star.	P	Micro	ometer.	c	A	В	$\frac{1}{2}(\delta+\delta')$	Micrometer.	8	ı	r	Mer	Latitude.	mom
Aug	8 9		21.9780 18.5497 21.0697 24.7990 19.4770	17 3827 21.1653 15.4613 9.9007 17.1497	$\frac{-5}{-87}$	$egin{array}{c} -\ .1 \ -\ .6 \ +1.0 \ +1.0 \ -\ .7 \ \end{array}$	$\begin{vmatrix}1 \\ +1.0 \end{vmatrix}$	40 37 28.18	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{vmatrix} + & 4 \\ - & 9 \\ + & 22 \end{vmatrix}$	-11 + 29	$-2 \\ +4 \\ -10$	6 6 5	40 36 22.92 22.02 23.28 23.25 22.75	76.6 75.6 68.5
	2 3 4 5 6		20.0347 11.8597 21.5277 11.9973 28.0867	21.8340 27.5823 15.5817 28.1790 9.5210 is	- 38 - 77	$\begin{vmatrix}1 \\ + .3 \\8 \\ -1.4 \\8 \end{vmatrix}$	5	40 29 45.61 40 38 52.35 40 29 33.25	$egin{array}{c} + & 6 & 37.48 \\ - & 2 & 30.16 \\ + & 6 & 49.22 \end{array}$	$\begin{vmatrix} - & 23 \\ + & 8 \\ - & 24 \end{vmatrix}$	$ \begin{array}{r r} - & 6 \\ - & 19 \\ - & 40 \end{array} $	$     \begin{array}{r}       -2 \\       +12 \\       -5 \\       +12 \\       +13     \end{array} $	7 10 6	22.70 22.99 22.13 22.01 22.71	68.5 68.4
	7 8 9 10 11		14.8207 27.2013 18.5953 16.7130 6.11771	29.0080 10.3590 22.7470 26.6083 33.033319	$     \begin{array}{r}       -181 \\       + 24 \\       +142     \end{array} $	-2.2	$ +1.3 \\ .0$	40 38 8.01 40 40 34.24	- 7 5.43 - 1 45.04 - 4 10.58	$\begin{vmatrix} + & 24 \\ + & 6 \\ + & 14 \end{vmatrix}$	<b>— 37</b>	-13	7 11 6	22.67 23.52 23.08 23.42 23.12	68.0 67.0 66.9
Aug 15	12 III 1 2 3 4	R	7.7103	12.4527 11.9600 31.2228iv 31.96! 0iv 27.6930iv	-62	$\begin{bmatrix}3 \\ -1.1 \\ + .7 \end{bmatrix}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	40 46 59.23 40 26 8.02	$   \begin{array}{r}     -657.19 \\     -1034.68 \\     +1013.41   \end{array} $	$\begin{vmatrix} + & 24 \\ - & 91 \\ + & 92 \end{vmatrix}$	-27 + 13	$-15 \\ -25 \\ +18$	9 11 5	23.23 23.48 23.23 22.71 22.85	76.1 75.4 74.4
	5 6 7 8 9		25.8967 18.5977 20.5060 15.8290 12.1867	15.2267 23.2103 17.8647 21.3927 27.0753	+36 $-18$ $-69$	-1.7 -1.3 3 8 -2.0	$\begin{bmatrix}5 \\7 \\ .0 \end{bmatrix}$	40 34 2.21	$egin{array}{ccccc} -& 1 & 56.73 \ -& 1 & 6.74 \ +& 2 & 20.51 \end{array}$	$\begin{vmatrix} + & 6 \\ + & 4 \\ - & 9 \end{vmatrix}$	- 27 - 14 - 13	$     \begin{array}{r}             + 9 \\             - 3 \\             - 2 \\             + 4 \\             - 10     \end{array} $	6 6	22.61 22.93 22.19 22.60 23.05	74.5
	IV 1 2 3 4 5		18.0510 22.5847 28.4610 18.2380 29.9307	20.3873 20.7913 12.8153 24.2023 13.7960	$^{+\ 27}_{+\ 86}_{+\ 64}$	$ \begin{array}{c c}8 \\ -2.0 \\1 \\ +.5 \\ +.2 \end{array} $	$\left  { + .9 \atop +2.5 } \right $	40 37 22.18 40 37 8.76 40 29 46.30 40 38 53.00 40 29 33.96	$ \begin{array}{r}  - 45.43 \\ + 635.85 \\ - 230.98 \end{array} $	$\begin{vmatrix} + & 2 \\ - & 23 \\ + & 8 \end{vmatrix}$	+ 40	$     \begin{array}{r}       -2 \\       -2 \\       +12 \\       -5 \\       +12     \end{array} $	7 10	23.05 22.94 22.21 22.55 22.59	72.4
	6 7 9 10 11		27.7677 20.8853 24.8310	i 29.3997iv 13.5973 16.7020 14.8570 8.7593 ii	$+83 \\ -45 \\ -13$	$\begin{array}{c}8 \\ +.9 \\ +1.3 \end{array}$	$ \begin{array}{c c} +2.3 \\ -2 \\ +.7 \\ +.2 \\1 \end{array} $	40 28 32.94 40 30 23.69 40 38 8.59 40 40 34.92 40 25 2.09	$     \begin{array}{r}       + 558.53 \\       - 145.67 \\       - 412.18     \end{array} $	$\begin{vmatrix} - & 21 \\ + & 6 \\ + & 14 \end{vmatrix}$	$ \begin{array}{rrrr} + & 65 \\ - & 15 \\ + & 23 \\ + & 23 \\ - & 14 \end{array} $	$^{+10}_{-3}_{-7}$	6	22.90 22.02 23.29 23.10 22.47	71.3
Aug 18	12 III 1 2 3 4	D	31.8417iv 33.6667iv	25.5480 28.4920iv 6.7007 ii 9.4270 ii 9.3047 ii	$     \begin{array}{r}         -7 \\         -34 \\         +59     \end{array} $	-1.9	+1.3 + .1 -1.5	40 46 59.57	$-10\ 35,65$ $+10\ 13.09$	$ \begin{array}{r} -1.04 \\ -91 \\ +92 \end{array} $	$\begin{array}{rrrr} - & 17 \\ + & 39 \\ - & 1 \\ - & 49 \\ - & 36 \end{array}$	$-10 \\ -15 \\ -25 \\ +18 \\ +19$	5	22.68 22.92 22.86 22.24 23.08	71.4 71.4
	5 6 7 8 9		13.7880 22.5067 19.0150 22.9807 26.2887	24.4433 17.8500 21.6850 17.4383 11.3727	$\begin{array}{ccc} + & 8 \\ + & 8 \\ + & 9 \end{array}$	$\begin{array}{c} + .2 \\ + .9 \\ + 1.4 \\4 \\ - 1.5 \end{array}$	$1 \\ .0 \\ +1.8 \\7 \\ -1.9$	40 37 29.62 40 34 2.88	$ \begin{array}{c} -157.77 \\ -17.54 \\ +220.17 \end{array} $	$\begin{array}{ccc} + & 6 \\ + & 4 \\ - & 9 \end{array}$	+ 14 + 45	$     \begin{array}{r}       + 9 \\       - 3 \\       - 2 \\       + 4 \\       - 10     \end{array} $	7 6 6 6 5	22.76 22.90 22.61 22.91 23.22	70.4 70.4 70.4 69.5
_	IV 1 2 3 4 5		11.655 <b>7</b> 22.2330	17.8823 21,1053 27.3177 16.2140 28.1423	+ 1	$     \begin{array}{r}       -2.5 \\       -2.7 \\       + .5 \\       +1.4 \\       .0     \end{array} $	-2.7 $-1.0$ $+ .5$ $+ .1$ $4$	40 37 22.99 40 37 9.61 40 29 47.24 40 38 53.89 40 29 34.93	<b>—</b> 2 32.09	$\begin{array}{cccc} + & 3 \\ + & 2 \\ - & 23 \\ + & 8 \\ - & 24 \end{array}$	$^{+}_{+}$ $^{14}_{24}$	$     \begin{array}{r}       -2 \\       -2 \\       +12 \\       -5 \\       +12     \end{array} $	11 7	22.89 22.81 23.20 22.17 22.35	68.4 68.5 67.5
Aug 19	III 2 3 4 5 6		7.2517 <sup>ii</sup> 7.7633 <sup>ii</sup> 27.4970	32.3397iv 31.4773iv 31.7823iv 16.8803 23.4127	$-24 \\ -8 \\ +202$	+2.3	$-.1^{0}$	40 46 59.66 40 26 8.62 40 26 14.49 40 31 53.66 40 38 20.61	$+10 \ 12.53 \\ +10 \ 7.34 \\ + 4 \ 28.97$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$+ 55 \\ - 16$	$^{+18}_{+19} \\ ^{+}_{+}$	11 5 6 7 6	23.68 22.85 22.84 22.68 22.62	65.4 65.9

		_			Les	vels.			Correct	ions.				The
1895.	Star.	P	Micrometer.	C	AB	$\frac{1}{2}(\delta+\delta')$	Micrometer.	δ	ı	r	Mer	Latitude.	mom	
ug			1				0 / //						0 / //	0
19	III 7	$\mathbf{R}$	19.2623  16.604	7 - 49	+1.2	4	40 37 29.79	-1 7.08	+ 4	+ 14	<b>— 2</b>	6	40 36 22.93	64.8
	8	•	18.3123 23.820	+51	<b>—</b> .6	1	40 34 3.08	+219.56	<u> </u>	_ 11	+4	6	22.54	64.8
	9		13.8397 28.74	37   <del>+</del> 168	-1.2	-1.2	40 42 40.53	-617.30	+ 22	35	-10	5	23.05	65.0
	IV 1	$\mathbf{R}$	19.5483 21.95	00 + 15	+2.1	+ .7	40 37 23.23	_ 1 0.77	+ 3	+ 43	_ 2	13	23,03	62.0
	2		22.3017 20.44	10   + 21		+ .7	40 37 9.86	<b>—</b> 47.03	🕂 2	+ 7	- 2	11	23.01	
	3		29.1583 13.559	3 +184	.0	5	40 29 47.52	$ _{+}$ 6 34.91	23	_ 6	+12	7	22.33	61.
	4		18.8640 24.84	98 + 98	1.3	5	40 38 54.16	-231.51	+ 8	27	_ 5	10	22.51	(
	5		28.2740 12.17	+24	3	+ .1	40 29 35.25	+647.10	_ 24	_ 3	+12	6	22.26	1
	6	$\mathbf{D}$	29.4143iv 10.92	0 ii - 2	-1.1	-1.0	40 28 34.25	+ 7 47.63	+1.00	- 30	+13	5	22.76	62.
	7		13.8157 27.94	7 +108		8. —	40 30 25.00	+ 5 57.45		+ 10	<b> </b> +10	6	22.50	
	8		33.7157 16.88	3 +771	+1.4	+ .5	40 43 30.29	<b>-</b> 7 7.61	+ 24	+ 29	-13	7	23.15	
	9		14.8993 19.14	0 -109	4	+1.7	40 38 9.74	- 1 46.98	+ 6	+ 16	- 3	11	23.06	1
	10		15.5310 25.52	37 + 48	8	$\dotplus$ .2	40 40 36.23	<b>4</b> 12.92	<b>i</b> 14	10	- 7	6	23.34	59.
	11		5.6850 ii 32.49	7iv - 55		$\dot{+}$ .3	40 25 3.38	+1117.87		+ 20	+20	6	22.59	59.

Adjustment of the Latitude.

In case every pair of a given group has been observed on any night, the mean of the resulting latitudes will be based upon the mean value of the declinations of all stars of this group. The differences between the individual values and the mean of all will furnish the corrections required to reduce the individual latitudes to the mean system. These corrections will only be required in case of failure to observe one or more of the pairs forming the group.

In order to avoid errors resulting from outstanding uncertainties as to the value of the micrometer screw, it is desirable that the plus and minus corrections of each group shall balance as nearly as may be. This condition cannot be fully realized, at least not for any considerable time, owing to the effect of precession. The following tabular statement gives the approximate values of these corrections, in terms of micrometer revolutions, for each group of this series.

			Begin	ning.			En	ıd.	
		1	II	III	ΙV	I	II	III	IV
Pair	1 2 3 4 5 6 7 8 9 10 11 12	$\begin{array}{r} -15.3 \\ + 4.2 \\ -14.2 \\ -3.5 \\ + 8.3 \\ + 6.7 \\ -16.1 \\ + 6.4 \\ -5.3 \\ +21.4 \end{array}$	$\begin{array}{c} -6.4 \\ -5.1 \\ +2.5 \\ -2.1 \\ -0.3 \\ -22.9 \\ [-11.7] \\ +20.9 \\ [+3.5] \\ +16.0 \end{array}$	$\begin{array}{r} -15.8 \\ -24.4 \\ +25.2 \\ +25.0 \\ +11.7 \\ -3.5 \\ -1.4 \\ +6.8 \\ -13.6 \end{array}$	- 1.3 - 0.7 [+16.8] - 4.8 +17.4 +19.8 +15.4 -15.6 - 3.0 - 8.7 [+28.1] -11.5	$\begin{array}{r} -15.4 \\ + 4.0 \\ -14.4 \\ - 3.6 \\ + 8.3 \\ + 6.8 \\ -16.1 \\ + 6.5 \\ - 5.2 \\ + 21.6 \end{array}$	$\begin{array}{c} -6.4 \\ -5.1 \\ +2.5 \\ -2.1 \\ -0.3 \\ -22.9 \\ [-11.7] \\ +20.8 \\ [+3.5] \\ +15.9 \end{array}$	-16.4 -25.0 +24.4 +24.2 +10.9 - 4.4 - 2.4 + 5.8 -14.7	$\begin{array}{c} -2.1\\ -1.6\\ (+15.9)\\ -5.7\\ +16.4\\ +18.8\\ +14.4\\ -16.6\\ -4.0\\ -9.8\\ (+27.1)\\ -12.6 \end{array}$
Mean Omitt		. —0.7	$-0.6 \\ + 0.3$	+ 1.1	$+4.3 \\ +0.4$	_ 0.7	$-1.0 \\ + .3$	+ 0.3	+ 3.3 0.1

By omitting the bracketed pairs in Groups II and IV the algebraic sum of the corrections is in every case so small that very little apprehension need exist with respect to errors from this source. The latitudes have therefore been reduced to the means of the remaining pairs of these groups. One of the component stars of Pair 9, Group II, is a variable which was lost on so many occasions that this pair was not included.

The following tabular statements show the individual differences from the mean values, with the resulting reductions for the separate pairs.

ı.

		<u> </u>			1.					
1894.	1	2	3	4	5	6	7	8	9	10
Jan. 19 25 27 80 6 23 24 27 Mar. 3 4 7 12 14 Oct. 11 17 18 19 27 Nov. 1 3 10 11 19 Dec. 3 4 5 23 27 1895. 31 Jan. 1 4 11 16 19 23 24 27 7 1895. 31 Jan. 2 4 17 1895. 31 Jan. 3 9	$\begin{array}{c} + & 3 \\ - & 8 \\ + & 2 \\ + & 25 \\ - & 46 \\ - & 16 \\ + & 38 \\ + & 12 \\ - & 46 \\ - & 16 \\ + & 38 \\ + & 12 \\ - & 28 \\ + & 11 \\ - & 28 \\ + & 12 \\ - & 30 \\ - & 14 \\ - & 28 \\ + & 11 \\ - & 19 \\ - & & 16 \\ - & & 16 \\ - & & 19 \\ - & & 41 \\ + & & 29 \\ + & & 11 \\ + & & 29 \\ + & & & 11 \\ + & & & 22 \\ + & & & 11 \\ + & & & & 29 \\ + & & & & 11 \\ + & & & & & 22 \\ + & & & & & 11 \\ + & & & & & & 29 \\ + & & & & & & & 11 \\ + & & & & & & & & \\ + & & & & & & & &$	$\begin{array}{c} +\ 59\\ +\ 19\\ +\ 18\\ +\ 18\\ +\ 42\\ +1.15\\ +\ 38\\ +\ 60\\ +\ 41\\ +\ 70\\ +\ 31\\ +\ 17\\ +\ 30\\ +\ 52\\ +\ 14\\ +\ 50\\ +\ 12\\ -\ 12\\ +\ 32\\ +\ 14\\ +\ 54\\ +\ 17\\ -\ 32\\ +\ 13\\ +\ 54\\ +\ 17\\ -\ 32\\ +\ 106\\ +\ 43\\ +\ 21\\ +\ 42\\ +\ 21\\ +\ 42\\ +\ 12\\ +\ 13\\ +\ 58\\ \end{array}$	$\begin{array}{c} -56\\ +21\\ -75\\ -12\\ -75\\ -12\\ -75\\ -12\\ -78\\ -12\\ -78\\ -12\\ -78\\ -12\\ -78\\ -12\\ -78\\ -12\\ -78\\ -12\\ -12\\ -78\\ -13\\ -15\\ -13\\ -15\\ -13\\ -15\\ -15\\ -17\\ -17\\ -17\\ -17\\ -17\\ -17\\ -17\\ -17$	$\begin{array}{c} -5 \\ -71 \\ +2 \\ -71 \\ +2 \\ -71 \\ -2$	$\begin{array}{c} -58 \\ +28 \\ +28 \\ +47 \\ +63 \\ -70 \\ -12 \\ +29 \\ +38 \\ -16 \\ -14 \\ +38 \\ -16 \\ -144 \\ -52 \\ -30 \\ -42 \\ -52 \\ +54 \\ +13 \\ -27 \\ +29 \\ -52 \\ +54 \\ +29 \\ -23 \\ -51 \\ -27 \\ +29 \\ -23 \\ -27 \\ -27 \\ +23 \\ -23 \\ -23 \\ \end{array}$	$\begin{array}{c} + 22 \\ + 29 \\ + 17 \\ - 89 \\ - 18 \\ + 10 \\ - 52 \\ - 8 \\ - 30 \\ + 61 \\ - 13 \\ - 27 \\ - 416 \\ + 11 \\ - 27 \\ - 27 \\ + 16 \\ + 21 \\ - 24 \\ + 35 \\ + 23 \\ - 13 \\ - 16 \\ + 21 \\ - 34 \\ - 34 \\ - 93 \\ - 31 \\ - 27 \\ - 25 \\ - 13 \\ - 27 \\ - 21 \\ - 24 \\ - 21 \\ - 24 \\ - 21 \\ - 25 \\ - 25 \\ - 25 \\ - 25 \\ - 25 \\ - 25 \\ - 21 \\ - 25 \\ - $	$\begin{array}{c} -55 \\ -16 \\ -44 \\ -12 \\ -29 \\ -81 \\ -82 \\ -17 \\ +15 \\ -25 \\ -20 \\ -33 \\ -13 \\ +7 \\ +33 \\ -32 \\ -32 \\ -46 \\ -55 \\ -10 \\ -56 \\ -24 \\ -53 \\ -87 \\ +34 \\ -92 \\ -38 \\ +60 \\ +16 \\ -52 \\ -32 \\ -34 \\ -28 \\ -32 \\ -32 \\ -34 \\ -34 \\ -32 \\ -32 \\ -32 \\ -34 \\ -34 \\ -32 \\ $	$\begin{array}{c} + & 31 \\ - & 19 \\ + & 24 \\ - & 8 \\ + & 9 \\ + & 38 \\ + & 15 \\ + & 28 \\ - & 26 \\ + & 13 \\ - & 38 \\ - & 13 \\ - & 38 \\ + & 12 \\ - & 54 \\ - & 21 \\ + & 20 \\ + & 12 \\ - & 70 \\ + & 16 \\ + & 20 \\ + & 170 \\ - & 16 \\ + & 44 \\ + & 20 \\ + & 12 \\ - & 70 \\ + & 16 \\ + & 21 \\ + & 53 \\ - & 18 \\ + & 18 \\ \end{array}$	$\begin{array}{c} + 52 \\ + 35 \\ - 8 \\ + 43 \\ - 26 \\ + 23 \\ + 19 \\ + 25 \\ - 111 \\ + 31 \\ + 29 \\ + 6 \\ + 15 \\ + 39 \\ + 40 \\ + 79 \\ + 65 \\ + 40 \\ + 79 \\ + 65 \\ + 17 \\ + 44 \\ + 48 \\ + 76 \\ + 21 \\ + 89 \\ + 1.04 \\ + 18 \\ + 21 \\ + 89 \\ + 1.04 \\ + 18 \\ + 21 \\ + 89 \\ + 1.04 \\ + 18 \\ + 21 \\ + 30 \\ + 59 \\ + 54 \\ + 92 \\ + 30 \\ \end{array}$	$\begin{array}{c} + & 02 \\ + & 24 \\ + & 35 \\ - & 19 \\ + & 36 \\ - & 19 \\ + & 47 \\ - & 13 \\ + & 10 \\ - & 110 \\ + & 482 \\ - & 24 \\ + & 22 \\ + & 40 \\ + & 40 \\ + & 17 \\ - & 52 \\ + & 40 \\ + & 40 \\ + & 17 \\ - & 52 \\ + & 40 \\ + & 40 \\ + & 18 \\ + & 2 \\ + & 40 \\ + & 18 \\ + & 32 \\ - & 21 \\ + & 48 \\ + & 37 \\ + & 45 \\ + & 45 \\ \end{array}$
Mean .	+ 03	+ 30	+ 02	— 16	_ 13	_ 17	_ 27	- 03	+ 32	+ 09

II.

1894.	1	2	3	4	5	6	7	8	9	10
Feb. 1 16 24 26 Mar. 4	$ \begin{array}{cccc} + & 14 \\ - & 38 \\ + & 6 \\ - & 13 \\ - & 22 \end{array} $	$\begin{array}{r} - & 20 \\ + & 68 \\ + & 77 \\ - & 24 \\ + & 35 \end{array}$	$ \begin{array}{c} + & 3 \\ + & 15 \\ + & 7 \\ + & 6 \\ + & 4 \end{array} $	$ \begin{array}{r} + 13 \\ - 57 \\ - 7 \\ - 98 \\ + 49 \end{array} $	$ \begin{array}{rrrr}  & - & 18 \\  & - & 6 \\  & + & 45 \\  & - & 37 \\  & + & 12 \end{array} $	+ 34 + 22 - 38 - 28 - 15	- 28 + 31 - 20 - 22 + 60	$ \begin{array}{rrrr}  & - & 41 \\  & - & 2 \\  & - & 69 \\  & + & 37 \\  & - & 46 \end{array} $		$\begin{array}{c c} + & 15 \\ + & 1 \\ - & 23 \\ - & 37 \\ - & 14 \end{array}$
14 16 April 13 14 15 22	$egin{array}{cccccccccccccccccccccccccccccccccccc$	+ 33 - 59 - 39 - 3 - 35 - 20	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c cccc} + & 14 \\ - & 12 \\ + & 18 \\ + & 17 \\ - & 7 \\ + & 29 \end{array}$	$ \begin{array}{rrr}  & -6 \\  & +32 \\  & +1 \\  & -97 \\  & -45 \\  & -69 \end{array} $	$\begin{array}{c} + 60 \\ + 74 \\ + 04 \\ - 22 \\ + 69 \\ - 13 \\ + 31 \end{array}$	$ \begin{array}{rrr}  & 29 \\  & 25 \\  & 3 \\  & + 25 \\  & + 26 \\  & - 53 \end{array} $	- 18 - 46 - 14 - 53 - 15 + 8	$ \begin{array}{r}  - 17 \\  + 12 \\  + 19 \\  + 10 \\  - 6 \\  + 9 \end{array} $
24 25 26 May 8 9	$ \begin{array}{ccccc} + & 8 \\ - & 29 \\ - & 32 \\ - & 40 \\ - & 2 \\ + & 4 \end{array} $	$\begin{array}{c c}  & 20 \\  & 36 \\  & 26 \\  & 26 \\  & 70 \\  & 19 \end{array}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{r}  - 41 \\  + 76 \\  + 4 \\  + 44 \\  + 12 \\  - 16 \end{array} $	+ 13 - 56 - 44 - 21 - 61 - 28	- 4 - 28 - 2 - 39 - 62 - 24	$egin{array}{cccc} -&7 & & & & & & & & & & & & & & & & & &$
June 10 14	- 16 - 32 - 11	$ \begin{array}{c c} - & 12 \\ - & 8 \\ + & 13 \end{array} $	$\begin{array}{c c} + & 23 \\ + & 3 \\ + & 12 \end{array}$	$\begin{array}{c} + & 38 \\ + & 42 \\ + & 36 \end{array}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{c c} - & 23 \\ - & 5 \\ - & 64 \end{array}$	$\begin{array}{c c} + & 23 \\ - & 8 \\ + & 46 \end{array}$	— 25 — 58 — 16	— 33 — 96	$egin{pmatrix} + & 26 \\ + & 18 \\ - & 26 \end{matrix}$
15 17 1895. 22 Mar. 16 17 21	$ \begin{array}{rrr}  & -24 \\  & +10 \\  & +30 \\  & +59 \\  & -20 \\  & +24 \end{array} $	$ \begin{array}{r} + 16 \\ - 5 \\ - 35 \\ - 17 \\ - 39 \\ - 32 \end{array} $	$ \begin{array}{ccccc} + & 15 \\ - & 3 \\ - & 17 \\ - & 21 \\ + & 34 \\ - & 9 \end{array} $	$   \begin{array}{r}     + 97 \\     + 43 \\     + 21 \\     + 14 \\     + 20 \\     + 39   \end{array} $	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{rrrr}  - & 3 \\  + & 38 \\  + & 13 \\  + & 33 \\  + & 60 \\  + & 6 \end{array} $	$ \begin{array}{cccc}  & - & 85 \\  & - & 1 \\  & - & 59 \\  & - & 3 \\  & - & 57 \\  & - & 22 \end{array} $	- 30 - 12 - 51 - 30	$egin{array}{ccccc} -&17 & & & 51 \ +&17 & & & 20 \ +&2 & & & & & & \\ -&&19 & & & & & & \end{array}$
25 28 April 10 11 14 18	$ \begin{array}{ccccc}  & - & 10 \\  & & 2 \\  & + & 27 \\  & & 1 \\  & & 25 \\  & & & 0 \end{array} $	$ \begin{array}{rrrr}  & + & 19 \\  & - & 4 \\  & - & 28 \\  & - & 57 \\  & - & 3 \\  & - & 30 \end{array} $	$egin{array}{cccc} + & 32 \\ - & 10 \\ + & 18 \\ - & 16 \\ \hline & + & 13 \\ - & & 26 \\ \hline \end{array}$	$ \begin{array}{rrrr}  & - & 21 \\  & + & 64 \\  & + & 37 \\  & + & 44 \\  & + & 5 \\  & + & 85 \end{array} $	$\begin{array}{rrrr} - & 6 \\ + & 32 \\ + & 7 \\ + & 31 \\ + & 43 \\ - & 30 \end{array}$	- 20 - 23 - 48 - 14 - 31 - 50	$ \begin{array}{c cccc} + & 29 \\ - & 30 \\ + & 17 \\ - & 33 \\ - & 11 \end{array} $	$ \begin{array}{rrr}  & 38 \\  & 33 \\  & 11 \\  & + 16 \\  & 35 \\  & & 22 \end{array} $	— 52 — 77 — 8 — 27 — 74 — 7	$ \begin{array}{ccccc} + & 42 \\ - & 22 \\ - & 3 \\ + & 35 \\ + & 69 \\ \end{array} $
19 20 21 23 May 1 6 9 16	- 2 - 1 + 15 + 8 - 41 - 46 + 11 - 88	$\begin{array}{c} + & 46 \\ + & 11 \\ - & 16 \\ - & 7 \\ + & 43 \\ + & 12 \\ - & 25 \\ + & 82 \\ - & 23 \end{array}$	- 58 - 40 - 12 - 19 + 13 - 5 - 5 - 36 - 3	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} - & 11 \\ - & 37 \\ + & 7 \\ + & 7 \\ - & 10 \\ + & 49 \\ + & 35 \\ + & 28 \\ + & 31 \end{array}$	$ \begin{array}{rrrr}  & 11 \\  & 12 \\  & 55 \\  & 59 \\  & 41 \\  & 37 \\  & 17 \\  & 40 \\  & 24 \\ \end{array} $	$\begin{array}{c} + & 9 \\ + & 37 \\ + & 51 \\ + 1.03 \\ - & 29 \\ - & 8 \\ + & 82 \\ + & 31 \\ + & 6 \\ + & 59 \end{array}$	- 33 + 34 - 13 - 51 - 19 - 33 - 51 - 52 - 43	— 32 — 42 — 15 — 85 — 49 — 45 — 59 — 29	$\begin{array}{c} + 26 \\ + 28 \\ + 41 \\ + 47 \\ + 20 \\ + 9 \\ - 4 \\ + 38 \end{array}$
June 7 8 9 11 14 23	$\begin{array}{c} + & 7 \\ - & 43 \\ + & 36 \\ + & 17 \\ + & 19 \\ - & 48 \\ - & 41 \\ - & 22 \\ + & 6 \\ - & 20 \\ + & 28 \\ - & 14 \\ \end{array}$	- 20 - 44 - 14 - 33 - 4 + 8 - 5 - 37 + 22 + 5	- 3 + 48 - 25 - 25 + 14 - 19 + 39 + 8 - 9 - 1 + 23 + 9	+ 29 + 24 + 22 + 15 + 25 + 29 + 33 + 48 + 58 - 4 + 31 + 30	+ 31 + 45 + 42 + 49 + 59 + 41 + 40 + 1 + 35 + 20 - 0	- 24 - 38 - 24 - 38 - 22 - 22 + 2 - 19 - 17 - 40 - 20	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	- 45 - 30 - 30 - 4 - 6 - 38 - 62 - 62 - 51 - 52 + 8	- 44 - 77 - 8 - 82 - 69 - 65 - 29 - 90 + 12 - 52	+ 27 + 13 + 13 + 21 - 30 + 13 - 18 - 8 + 63 + 32 - 18 - 14
Mean .	09	- 06	+ 02	+ 37	+ 20	24	+ 18	27	<b>— 40</b>	+ 07

## THE SAYRE OBSERVATORY.

III.

1894.	1	2	3	4	5	6	7	8	9
May 8 12 26 27 June 10 15 28 July 9 13 17 25 Aug. 5 6 9 10 21 22 23 24	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	- 22 - 35 - 50 - 33 - 48 - 35 - 11 + 19 - 24 + 3 - 32 - 62 - 51 + 4 + 7 + 45 + 45 - 20	$\begin{array}{c} -41\\ +24\\ -13\\ +61\\ -8\\ -5\\ -16\\ +3\\ -42\\ +6\\ -0\\ -47\\ -25\\ -64\\ -24\\ -73\\ -80\\ +25\\ -48\\ \end{array}$	- 32 - 11 - 40 - 85 - 50 - 87 - 22 - 53 - 31 - 93 - 33 - 12 - 31 - 49 - 97 - 85 - 12 - 1.04 - 82	+ 37 + 13 + 26 + 7 + 2 + 63 + 25 - 4 + 39 + 26 + 48 + 13 - 9 + 2 + 30 + 21 + 35 + 25 + 35	$\begin{array}{c} + \ 37 \\ - \ 17 \\ + \ 22 \\ - \ 10 \\ + \ 12 \\ - \ 9 \\ - \ 0 \\ + \ 26 \\ + \ 9 \\ + \ 22 \\ + \ 5 \\ + \ 20 \\ + \ 18 \\ + \ 35 \\ + \ 27 \\ + \ 15 \\ + \ 54 \\ \end{array}$	+ 33 + 58 + 23 + 66 + 22 - 1 + 11 + 22 + 30 + 20 + 12 - 22 + 10 + 43 + 25 + 27 - 33 + 32 + 25	- 24 + 29 + 74 + 51 + 42 + 37 + 21 + 18 - 14 + 87 - 16 + 61 - 3 - 12 - 19 + 6 + 13 - 5 - 31	$\begin{array}{c} + & 19 \\ - & 63 \\ - & 32 \\ - & 47 \\ + & 18 \\ + & 49 \\ - & 3 \\ - & 27 \\ + & 14 \\ - & 24 \\ + & 17 \\ - & 24 \\ + & 26 \\ + & 32 \\ - & 9 \\ + & 16 \\ + & 30 \\ - & 16 \\ + & 40 \end{array}$
24 31 Sept. 11	$\left  egin{array}{c} + & 44 \ + & 26 \ - & 1 \end{array} \right $	$egin{pmatrix} + & 18 \\ - & 1 \\ + & 34 \end{bmatrix}$	$\begin{array}{ccc} + & 21 \\ - & 29 \\ - & 49 \end{array}$	— 79 — 35 — 70	$\left  egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} + & 6 \\ + & 3 \\ - & 0 \end{array}$	$egin{array}{cccc} + & 45 \\ - & 4 \\ + & 28 \end{array}$	$\left  egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{ c c c c c } + & 7 \\ + & 24 \\ + & 30 \end{array}$
Mean .	+ 09	09	— 15	54	+ 16	+ 13	+ 21	+ 15	+ 04

III.

1895.	1	2	3	4	5	6	7	8	9
May 9 10 22 23 28 29 30 June 7 8 11	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	- 57 - 35 - 29 - 29 - 43 - 38 - 36 - 18 - 34 - 16	+ 19 + 35 - 8 + 61 - 14 + 43 - 11 + 51 - 7 - 34	- 45 - 60 - 68 - 21 - 52 - 51 - 13 - 19 - 55 - 46	$\begin{array}{c} + 28 \\ - 5 \\ + 9 \\ + 8 \\ + 28 \\ - 6 \\ - 7 \\ + 25 \\ + 4 \\ + 40 \end{array}$	- 16 + 32 + 40 + 2 + 11 + 25 + 23 - 40 + 49 + 59	+ 23 + 34 + 51 - 3 + 34 + 41 + 58 + 51 + 26 + 32	+ 36 + 52 - 17 - 28 + 68 + 29 + 24 - 29 + 69 + 42	+ 20 - 42 + 20 - 11 - 8 - 15 - 24 - 37 - 30 - 49
July 9 10 12 18 19 25 28 30 31 Aug. 3 7 8 10 12 15 18	+ 15 - 54 - 42 - 7 - 21 + 26 - 21 + 8 + 6 + 23 - 21 - 6 - 8 - 9	- 10 - 23 - 39 - 33 - 8 - 22 + 33 - 36 - 50 - 15 - 37 - 45 - 40 - 59 - 5 - 38 - 38	+ 54 + 56 - 6 + 42 + 71 - 2 + 49 + 71 + 26 + 44 + 18 + 16 + 82 + 28 + 31 + 14 + 59	- 78 - 17 - 1 - 9 - 10 - 80 - 51 - 30 - 29 - 33 - 2 - 8 - 10 - 4 - 54 - 0 - 25	- 27 - 27 - 2 + 29 - 30 - 2 + 33 + 12 - 11 + 150 - 28 + 11 + 16 + 10 + 1 + 24 + 7	+ 14 - 28 - 17 - 50 + 8 - 28 - 28 - 28 + 11 + 15 - 23 + 34 - 0 - 8 - 7	+ 84 + 46 + 777 + 30 + 29 + 27 + 25 + 44 + 17 - 4 + 38 + 38 + 1 + 34 + 90 + 66 + 22	- 11 + 7 + 29 + 33 + 23 + 16 - 7 + 39 + 3 - 12 - 9 - 4 - 26 - 36 + 25 - 8	- 38 + 16 - 32 - 19 - 28 - 4 - 37 - 27 + 15 - 30 - 16 - 3 - 21 - 13 - 23 - 23 - 39
Mean .	_ 11	<b>— 28</b>	+ 30	_ 32	+ 9	+ 3	+ 37	+ 11	— 19

IV.

1894.	1	2	3	4	5	6	7	8	9	10	11	12
July 9 12 13 Aug. 5 6 9 20 22 23 81 11 12 15 Oct. 5 6 16 18 19 20 Nov. 1 11 12 15 19 20 21 22 26 26 27 29	- 12 - 12 - 19 - 37 - 14 - 80 - 14 - 80 - 12 - 46 - 27 - 36 - 46 - 27 - 38 - 12 - 9 - 11 - 54 - 32 - 38 - 11 - 11 - 11 - 12 - 12 - 13 - 14 - 15 - 16 - 17 - 17 - 17 - 18 -	$\begin{array}{c} -11\\ -50\\ +50\\ +26\\ -41\\ -12\\ -12\\ -12\\ -12\\ -12\\ -12\\ -12\\ -1$	$\begin{array}{c} + & 9 \\ + & 37 \\ - & 28 \\ - & 37 \\ - & 50 \\ - & 25 \\ - & 22 \\ - & 3 \\ - & 25 \\ - & 22 \\ - & 3 \\ - & 27 \\ + & 30 \\ - & 20 \\ + & 38 \\ - & 27 \\ + & 30 \\ - & 20 \\ - & 54 \\ - & 20 \\ - & 20 \\ - & 16 \\ \end{array}$	$\begin{array}{c} + & 34 \\ + & 77 \\ + & 24 \\ + & 49 \\ + & 31 \\ + & 416 \\ + & 57 \\ + & 11 \\ + & 56 \\ + & 29 \\ + & 67 \\ + & 98 \\ + & 65 \\ + & 53 \\ + & 102 \\ + & 19 \\ + & 42 \\ + & 105 \\ + & 45 \\ + & 45 \\ \end{array}$	$\begin{array}{c} -35\\ +11\\ -19\\ +23\\ +34\\ +88\\ +12\\ +31\\ +28\\ +12\\ +31\\ +28\\ +12\\ +16\\ -15\\ 6\\ 3\\ 16\\ 8\\ 8\\ 7\\ +17\\ +13\\ 33\\ +16\\ \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} +\ 30 \\ +\ 64 \\ +\ 12 \\ -\ 3 \\ +\ 18 \\ -\ 8 \\ +\ 16 \\ -\ 18 \\ +\ 29 \\ +\ 15 \\ +\ 27 \\ -\ 11 \\ +\ 21 \\ -\ 25 \\ +\ 30 \\ +\ 14 \\ +\ 53 \\ +\ 1 \\ -\ 26 \\ +\ 40 \\ +\ 14 \\ +\ 26 \\ +\ 48 \\ -\ 4 \end{array}$	- 38 - 32 - 31 - 32 - 50 - 49 - 47 - 47 - 99 - 76 - 12 - 39 - 16 - 36 - 79 + 41 - 22 - 35 - 29 - 65 - 29 - 34	$\begin{array}{c} + 51 \\ - 19 \\ - 25 \\ - + 33 \\ + 115 \\ - + 31 \\ + 27 \\ - 45 \\ - 14 \\ + 27 \\ - 45 \\ - 21 \\ - 49 \\ + 45 \\ - 27 \\ + 45 \\ - 27 \\ + 25 \\ - 4 \\ - 33 \\ - 33 \\ \end{array}$	$\begin{array}{c} -34 \\ -30 \\ -24 \\ -8 \\ +22 \\ +58 \\ -40 \\ -10 \\ -24 \\ +58 \\ +13 \\ -31 \\ -36 \\ -26 \\ -54 \\ +60 \\ -29 \\ -44 \\ -44 \\ \end{array}$	- 52 + 42 - 51 - 76 - 61 - 45 - 1.12 - 38 - 29 - 16 - 23 - 78 - 23 - 78 - 24 - 16 - 37 - 24 - 16 - 32 - 37 + 47 - 65 - 17 - 11 - 16 - 62 - 59 - 66 - 14	$\begin{array}{c} +\ 50 \\ -\ 22 \\ +\ 50 \\ +\ 58 \\ +\ 63 \\ +\ 19 \\ +\ 31 \\ +\ 26 \\ +\ 24 \\ +\ 24 \\ +\ 24 \\ +\ 24 \\ +\ 24 \\ +\ 30 \\ +\ 21 \\ +\ 22 \\ +\ 37 \\ -\ 33 \\ +\ 29 \\ \end{array}$
Mean .	— 14	+ 07	15	+ 46	+ 07		+ 15	<b>— 36</b>	— 13	_ 12	— 39	+ 20

IV.

1895.	1	2	3	4	5	6	7	8	9	10	11	12
July 16 18 19 28 29 Aug. 10 13	$\begin{array}{rrrr} - & 16 \\ - & 44 \\ - & 72 \\ + & 28 \\ + & 35 \\ - & 45 \\ + & 17 \end{array}$	$\begin{array}{c cccc} - & 45 \\ - & 1 \\ + & 64 \\ - & 24 \\ + & 1 \\ - & 23 \\ + & 22 \end{array}$	- 73 + 38 - 66 + 34 - 6 + 11 - 7	+ 47 + 78 + 39 + 33 + 26 + 75 - 21	$\begin{array}{ c c c c c }\hline & & 4\\ + & 27\\ + & 33\\ + & 34\\ + & 47\\ + & 63\\ + & 91\\\hline\end{array}$	$\begin{array}{c c} + & 32 \\ - & 15 \\ - & 9 \\ - & 8 \\ - & 7 \\ + & 18 \\ + & 21 \end{array}$	$egin{pmatrix} +&13 \\ +&63 \\ +&14 \\ +&96 \\ +&13 \\ +&23 \\ +&25 \\ \hline \end{pmatrix}$	- 81 - 74 - 58 - 66 - 39 - 25 + 60	$ \begin{array}{rrrr}  - & 8 \\  + & 6 \\  - & 24 \\  - & 12 \\  - & 18 \\  + & 3 \\  - & 16 \end{array} $	$\begin{array}{r} + & 2 \\ - & 31 \\ + & 14 \\ - & 41 \\ + & 20 \\ - & 49 \\ - & 50 \end{array}$	- 18 - 25 - 31 + 13 + 50 - 19 - 20	+ 57 - 5 - 1 - 44 - 81 - 39 - 31
Mean .	— 14			+ 40	+ 42	+ 5	+ 35	57	10			21

In the following tabular statement the column headed  $\phi_1$  gives the daily mean value of the seconds of latitude, the preceding corrections being applied when necessary. In column  $\phi_2$  the corrections for aberration and final adjustment of groups derived on pages 149 and 151 have been applied.

## A. P. S.—VOL. XX. S.

		I			II			III		į	П			III			IV			I		
	φ <sub>1</sub>	$\phi_2$	No	$\phi_1$	$\phi_2$	No	$\phi_1$	$\phi_2$	No		φ1	$\phi_2$	No	$\phi_1$	$\phi_2$	No	$\phi_1$	$\phi_2$	No	$\phi_1$	$\phi_2$	A
27 28 30 31 Feb. 1 4 5	22.79 23.28 23.34 22.92		10 10 10 7 10 9	23.09 23.35 22.81	23.34	8 9 3	"	"		July 3	22.86 22.96 22.78 22.79	22.92 22.97 23.07 23.07 22.89 22.91	8 8 7	22.94 22.93 22.93 22.79 23.11 22.68 23.32 22.81 22.96	22.92 22.92 22.92 22.80 23.11 22.70 23.33 32.82 22.97	5 1 9	22.88 22.95 22.93	23.00	12	"	"	
15 16 19 20 23 24 26	23.10 22.91 23.05 22.95 23.57	$23.03 \\ 23.18$	9 7 3 10 10	23.35 22.95 23.13 23.35	23.34 22.94 23.12 23.34	2 9 8 9 9				17 24 25 Aug. 5 6 9 10 20 21 22				23.23 22.92 22.68 22.93 23.01 22.95 22.87	23.19 23.26 22.95 <b>2</b> 2.72 22.97 23.05 23.00	8 9 9 9 9 7 9	22.86 23.11 23.01 23.04 22.75 22.60 22.75 22.77 22.90	22.92 23.16 23.08 23.10 22.82 22.67 22.83 22.85 22.99	11 12 12 12 12 11 11			
7 8 12 13 14 16 17	23.36 23.25 23.10 23.31 23.22	23.22 23.44 23.09 23.26 23.14 23.00 23.20 23.12	10 7 10 10 8	23.20 23.13 23.20 23.14 23.38	23.19 23.12 23.19 23.14	9 5 10 10 3 9				23 24 31 Sept. 7 11 12 15 Oct. 2				22.97	23.01 23.02 22.98 22.97 22.95 23.06 22.86	9 9 8 9 8	22.84 22.92 22.92 23.00 22.85 22.97 23.00 22.99 23.07	22.92 23.01 23.01 23.11 22.95 23.06 23.12 23.12 23.20	11 12 12 12 12 12 11 12	23.33	23.18	
Apl. 6 7 13 14 15 16 22 24 25 26				$22.99 \\ 23.37$	23.58 23.00 23.39 23.24 23.09 23.21 23.26 23.00 23.11 23.22	1 9 10 10 10 2 10 10 10				11 15 16 17 18 19 20 27 31 Nov. 1							23.16 23.04 22.90 23.02 22.91 23.12 22.98 23.11 22.96	23.30 23.17 23.04 23.15 23.05 23.25 23.12	5 11 12 11 12 12 12 12	23.16 23.23 23.32 23.31 23.13 23.25 23.24	23.00 23.08 23.17 23.16 22.98 23.10 23.09	1 1 1 1 1 1
30 May 8 9 10 12 13 26 27 June 3				22.82 23.00 22.86 23.05 23.00 22.89 22.75	23.24 23.08 22.87 23.05 22.91 23.11 23.08 22.97 22.83 22.70	10 9 10 4 10	23.07 23.27 23.05	23.10 23.00 23.22 22.99 22.81 23.03	983999	11 12	-						22.75 23.07 23.08 23.15 23.00 23.10 22.79	23.22 23.30 23.14 23.24	12 12 12 12 12	23.43 23.34	23.01 23.08 23.30 23.28 23.29	1
8 9 10 11 12 14 15 17 18 20				23.09 22.84 23.08 22.96 22.95 23.02	23.17 22.93 23.17 23.06 23.05 23.11 22.91 22.98	8 9 10 3 9 10 9 3	23.06 22.86	23.04 22.84 22.93 23.04	9 1 5 9 7 8	20 21 22 24 26 27 28 29 Dec. 3							23.17 23.13 23.01 23.18 22.78 22.93 23.20	23.31 23.27 23.15 23.32 22.91 23.07 23.34 23.31	12 12 11 12 12 12 11 12 10	23.22 23.52 23.38	23.09 23.38 <b>23.</b> 25	1

		IV		I			II				III			II				III		IV		
	$\phi_1$	$\phi_2$	No	$\phi_1$	$\phi_2$	No	$\phi_1$	$\phi_2$	No	$\phi_1$	$\phi_2$	No		$\phi_1$	$\phi_2$	No	φ <sub>1</sub>	φ <sub>2</sub>	No	$\phi_1$	$\phi_2$	No
1894 Dec. 5 6 23 27 28 1895 31 Jan 1 4 11	23.12 22.86	23.26 22.99	11	23.39 23.25 23.44 23.45 23.46 23.37 23.10 23.25	23.08 23.24 23.12 23.30 23.33 23.33 23.25 22.97 23.13 23.10	9 10 10 8 10 10 10	"	"		"	"		23 28 29 30 June 7 8	22.77 22.81 23.20 22.90 23.00 22.85 22.84 22.97	22.87 23.28 22.98 23.08 22.94	10 10 10 10 10 10 10	23.16 23.18 22.97 23.17 23.18 23.05 23.12 22.99	23.14 23.13 22.92 23.13 22.92 23.14 23.02 23.09 22.96 23.05	699999999999999999999999999999999999999	11	"	
16 19 23 24 27 29 31 Feb. 2 Mar. 3				23.26 23.53 23.40 23.41 23.40 23.46 23.38 23.47	23.07 23.14 23.41 23.29 23.29 23.30 23.34 23.27 23.36 23.48	10 10 10 10 2 10 10	23.15	23.37 23.28 23.14	8 9 8				16 23 25 28	22.73 22.80	23.27 22.99 22.84	9 1 10 5 3	23.11 23.01 22.93 23.00 23.08		9	22.80 22.94 22.92		11 7 12
6 9 10 14 16 17 18 19 21 22				23.46 23.22 23.04 23.23 23.47	23.12 22.95 23.13 23.37 23.27	10 5 3 8 7 8 6	23.24 23.24 23.34 22.93	23.34	10 10 9 10 9				18 19 25 26 28 29 30 31 Aug. 3			A CONTRACTOR OF THE SECONDARY AND ASSOCIATION OF THE SECONDARY ASSOCIATION	22.92 22.79 22.99 22.86 23.90 22.67 22.79 22.73 22.90 22.69	22.93 22.80 23.01 22.89 22.93 22.70 22.82 22.76 22.94 22.72	9 9 8 9 7 9	22.91 22.76 22.91 22.92 22.86	22.88 22.96 22.81 22.96 22.97 22.92 22.88	12 12 11 10 12 12
23 25 28 Apl. 10 11 14 15 18 19				23.41	23.30	5	22.77 23.18 23.12 23.40 23.39 23.23 23.31	23.13 23.42 23.42	10 10 10 10 10 3 10 10				7 8 10 12 13 15 18 19			TOTAL THE PROPERTY OF THE PROP	22.84 22.91 22.89 22.92 22.85 22.83 22.91	22.88 22.95 22.94 22.96 22.96 22.88 22.96	9 9 9	22.93 22.75 22.80	22.87	12 12 11 5 11
21 23 May 1 3 6 9 10 12 13 16							23.27 22.99 23.08 23.13 22.97 22.82 23.01	23.18 23.02 22.89	2 9	22.98 22.96	22.91 22.89 22.97	9 9										

The Constant of Aberration.

In the expression for  $\frac{1}{2}(\delta + \delta')$ —page 84—the terms  $\frac{1}{2}(c' + c_1')C + \frac{1}{2}(d' + d_1')D$  comprise the correction for aberration. Writing for C and D their values as given in the American Ephemeris and calling the expression  $\kappa$ , we have

$$\kappa = 20''.4451[-\frac{1}{2}(c'+c_1')\cos\omega\cos\odot-\frac{1}{2}(d'+d_1')\sin\odot].$$

Let  $20^{\prime\prime}.4451 + y$  be the true value of the constant of aberration,  $x + \delta x$  the corresponding correction,

Then

$$\kappa + \Delta \kappa = (20''.4451 + y)[-\frac{1}{2}(c' + c_1') \cos \omega \cos \bigcirc -\frac{1}{2}(d' + d_1') \sin \bigcirc].$$

By division

$$\frac{\kappa}{\kappa + \Delta \kappa} = \frac{20''.4451}{20''.4451 + y}$$

From which  $\Delta x = x.x$  where x is written for  $\frac{y}{20.4451}$ 

Let  $\phi_1$ ,  $\phi_2$ ,  $\phi_3$ ,  $\phi_4$  be the values of the latitude given by Groups I, II, III, IV,  $\Delta_1$ ,  $\Delta_2$ ,  $\Delta_3$ ,  $\Delta_4$  the constant part of the correction which these values require, The true value of the latitude will be

$$\begin{split} \phi &= \phi_1 + \Delta_1 + \kappa_1 x \\ &= \phi_2 + \Delta_2 + \kappa_2 x \\ &= \phi_3 + \Delta_3 + \kappa_3 x \\ &= \phi_4 + \Delta_4 + \kappa_4 x \end{split}$$

Employing the values of  $\phi_1$ ,  $\phi_2$ ,  $\phi_3$  and  $\phi_4$  determined on the same dates and subtracting the consecutive equations we have

$$\begin{split} 0 &= \phi_1 - \phi_2 + (\Delta_1 - \Delta_2) + (\kappa_1 - \kappa_2)x \\ &= \phi_2 - \phi_3 + (\Delta_2 - \Delta_3) + (\kappa_2 - \kappa_3)x \\ &= \phi_3 - \phi_4 + (\Delta_3 - \Delta_4) + (\kappa_3 - \kappa_4)x \\ &= \phi_4 - \phi_1 + (\Delta_4 - \Delta_1) + (\kappa_4 - \kappa_1)x. \end{split}$$

Adding we find  $0 = \Sigma \Delta \phi + \Sigma \Delta x.x.$ 

For deriving the value of y, those determinations of latitude were employed where both evening and morning observations were obtained on the same or consecutive dates. In three cases two days intervened between the morning and evening observations, and in one case three days.

The details are shown in the table which follows.  $\Sigma \phi$  is the sum of the seconds of observed latitude for the date indicated, the foregoing corrections having been applied for reduction to mean declination of group;  $\Sigma x$ , is the sum of corrections for aberration.

The process of assembling in groups and formation of equations seems to call for no farther explanation.

Determination of Constant of Aberration.

	I				II				III	[			IV	
	No	Σφ	Σκ	No.	$\Sigma \phi$	Σκ			No.	Σφ	Σκ	No.	Σφ	Σκ
1894. Jan. 27 31 Feb. 1 4	10 9	32.85 30.40	+22.7 $22.0$	8	24.74 30.16	-128.0 -147.2	1894.	12 13	9 9	27.95 25.33 26.67	+ 30.2 37.9 40.6	12 12 12	34.56 35.43 35.17	- 96.5 - 88.8 - 86.1
5 11 15 16	9 9 9 7	29.72 28.49 28.26	25.8 31.8 36.5	2	8.42 6.14	— 50.8 — 33.6		17 24 25	9 8 9	26.68 25.31 29.09	50.4 58.5 69.5	11 11	11.45 34.20 33.16	— 19.3 — 51.3 — 46.7
Feb. 7-5 I-II	53	$ \begin{array}{r}     22.97 \\     \hline     3.258 \\     + .044 \end{array} $	$ \begin{array}{r}     25.2 \\     + 3.09 \\     + 19.57 \end{array} $	$\frac{9}{31}$ 1.96	$\frac{30.17}{3.214}$	$\frac{-151.2}{-16.48}$	July III- Aug.	·	53	$+ \begin{array}{c} 3.038 \\ + 0.071 \\ 26.26 \end{array}$	+5.42  +11.69  +93.9	62 2.86 12	2.967 wt. 36.49	$-6.2^{\circ}$ $-21.4$
Feb. 23° 24	10	30.51 29.46	43.8 44.5	8 9 9	23.63 28.21 30.17	-133.2 $-148.8$ $-147.7$	1248.	6 9 10	9 9	24.14 26.38 27.11	96.2 103.2 104.1	12 12 12 11	33.01 31.22 30.28	$-\begin{array}{c} 31.4 \\ -18.7 \\ -9.5 \\ -6.1 \end{array}$
Mar. 3	10	35.69 34.16	46.2	8	27.29	128.0	Aug.	7–7	36	+ 0.099		47 2.04	2.787 wt.	<b>—</b> 1.19
Feb. 26-26  Mar. 8 12 13	40 7 10	$egin{array}{c} 3.245 \\ + 0.030 \\ 22.37 \\ 33.60 \end{array}$		34 1.84 3 5	3.215 wt. 9.60 15.65	- 16.40 - 44.4 - 81.0	Aug.	20 22 23 24 31	7 9 9 9	20.64 27.37 26.63 26.70 26.31	$egin{array}{c} +\ 93.2 \ 125.4 \ 126.8 \ 128.4 \ 138.0 \ \end{array}$	12 12 11 11 12	31.24 32.10	$   \begin{array}{r}     + 23.3 \\     + 29.2 \\     + 32.3 \\     + 29.5 \\     + 55.7   \end{array} $
14 16 17	10 8 8	32.51 24.78 26.48	53.2 42.9 43.5	10 10 3	31.98 31.41 10.14	-149.5 $-147.2$ $-40.1$	Aug.	24-24		2.969	$ \begin{array}{r}     + 14.23 \\     + 11.30 \end{array} $	58		+ 2.98
Mar. 13-14	43	+ 3.250 + .063	+ 20.22	31 1.80	3.187 wt.	— 14.91	Sep.	11 12 15	9 8 8	26.00 23.96 22.33	$\begin{array}{c} +149.6 \\ 133.9 \\ 136.0 \end{array}$	12 12 12	35.94 34.17 35.62	$+86.1 \\ +88.7 \\ +96.5$
May 8 9 10 12	10	ł		9 8 3 9			Sep.	13-13	25	045	+ 16.78 + 9.24	36 1.48	wt.	+ 7.54
May 10-10 II-III	39	2.928		$\frac{-29}{1.66}$		12.52	Oct.	6	12	36.89	V 143.1	8	26.61	— 45.6
May 26 27 May 26-26	8	$ \begin{array}{r} 30.05 \\ 23.14 \\ \hline 2.955 \end{array} $	$+\frac{24.5}{+24.5}$ $+\frac{2.72}{}$	$\begin{array}{ c c }\hline 9\\ 9\\\hline 18\\ \end{array}$	25.77 27.73 2.972	$ \begin{array}{r} -80.5 \\ -78.0 \\ -8.81 \end{array} $		11 15 16 17	5 11	15.78 33.44 34.77 33.24	68.9 145.0 159.4 149.7	10	31.57 29.03 33.25	- 56.7 - 51.8
		017	+ 11.53	0.90	wt.			18 19	12 12	34.86 37.45	162.3 163.6	10 10 10	33.06 31.34	56 0 55.9 55.6
June 10 14 15 17	9 10 9	30.81 26.56 30.18 25.34	$egin{pmatrix} + & 64.6 \\ & 69.1 \\ & 77.6 \\ & 75.9 \\ \hline \end{array}$	9 5 9 7	27.34 14.29 26.58 21.48	- 44.5 - 11.3 - 32.0 - 21.5	Oct. IV	15–15 –I	75		+ 13.23 + 18.87	57 3 24	3.243 wt.	<b>—</b> 5.64
20 22	8 9 —	23.94 25.36	+86.5	8 7	23.25 20.58	- 17.0 - 9.1	Oct. Nov.	27 1 2	11 12 7	34.16 35.55 19.23	156.7 175.7 107.1	10 10	32.46 33.77	— 53.5 — 51.6
June 16-16 II-III	55	018	$^{+}$ 8.16 $^{+}$ 11.17	45 2.47	2.967 wt.	- 3.01		3 4 6		36.88	177.3	10	32.95 18.88	-50.6 $-25.1$
June 28 July 3 5	8 7 7	23.70 $19.46$ $19.56$	$+\begin{array}{r} +85.7 \\ 80.3 \\ +83.2 \end{array}$	9 8 4	26.35 23.42 11.16	$egin{pmatrix} + & 1.6 \ + & 13.9 \ + & 16.2 \end{matrix}$		10 11 12		36.97 37.84	179.0 178.8	10 10	32.35 34.42	-47.2 $-46.5$
July 2-1	22	2.851 — .050	$\begin{array}{c}$	21 1.07	2.901 wt.	+ 1.51	Nov.	5–4	66	3.040 261	$+\ \frac{14.77}{+\ 19.67}$	56 3.03	3.301 wt.	<b>— 4.9</b>

	ľ	V			I			I	I			ш	
	No.	Σφ	Σκ	No.	Σφ	Σκ		No.	Σφ	Σκ	No.	Σφ	Σκ
1894. Nov. 15 16 19	11 12	35.94 34.10 33.42	178.6 164.4 177.7	8 9 10	27.45 30.08 33.66	- 36.5 - 37.3 - 41.6	1895. May 28 29 30	10 10 10	29.02	$\begin{array}{r} + & 29.2 \\ & 32.0 \\ & 34.7 \end{array}$	9 9	26.71 28.56 28.66	76.4 74.0 71.9
22 24 26 27	11 12 12	33.05 38.15 33.36	161.2 173.6 172.8	7	22.55 10.56	- 22.9 - 4.9	May 29-29	30	3.036	$+\ 3.20 \\ +\ 11.43$	27 1.42	3.109 wt.	— 8.23
Nov 21-19	70	2,972		37	3.359 wt.		June 7 8 9 11	10 10 10 10	28.55 28.39 29.69 30.07	+ 56.1 58.7 61.5 66.7	9 9 8 9	27.47 28.12 23.94 27.75	- 52.6 - 50.0 - 45.9 - 43.6
Dec. 3 4 5 6		31.70 32.84 34.32 31.43	142.8 154.3 153.1 152.0	10 10 10 4	33.82 33.96 32.09 30.47	$ \begin{array}{r} -30.8 \\ -30.1 \\ -29.1 \\ -28.2 \end{array} $	June 9-9	40	2.918 — .147		35 1.87	3.065 wt.	— 5. <b>4</b> 9
Dec. 5-4	43	3.030	$ \begin{array}{r}  - \\  + 14.00 \\  + 17.03 \end{array} $	39	3.342		June 23 25 28	10	28.86	+ 93.7 57.0	9	27.96	<b>—</b> 7.5
4000 7 00		ı	1			I	June 25-25	15	2.833 274	$^{+}$ 10.05 $^{+}$ 10.89	9 0.56	3.107 wt.	- 0.84
1895. Jan. 27 31 Feb. 2	10 10 10	34.08 34.60 33.80	$\begin{array}{c} + \ 22.2 \\ 25.9 \\ 27.6 \end{array}$	8 9 8	27.04 29.62 25.19	$     \begin{array}{r}       -127.8 \\       -146.3 \\       -132.1     \end{array} $			11			17	V
Jan. 30-30 I-II Mar. 14 16	30	$+\begin{array}{r} 3.416 \\ + 142 \\ 9.12 \end{array}$	$ \begin{array}{r}  + 2.52 \\  + 18.77 \\  \hline  17.0 \end{array} $	25 1.36	+ 3.274 wt.	- 16.25 147.5	July 9 12 16 18 19	9 9 7 9	27.08 26.98 21.58 26.24 25.09	+ 29.5 37.0 37.6 52.1 54.6	11 7 12 12 12	30.82 20.56 35.09 34.10 34.88	- 85.8 - 44.6 - 78.9 - 74.0 - 70.8
17   18   21   22	8 7 6	25.88 24.28 19.32	43.4 38.1 32.7	10 9 10 9	32.38 30.10 29.32 29.09	-147.5 $-146.0$ $-129.6$ $-140.0$ $-125.5$	July 15-15 III-IV	43	$+\frac{2.953}{.074}$	+ 4.90 + 11.46	54 2.39	2.879 wt.	
23 25	5	17.04	27.5	10	31.53	-133.1	July 25 26 28 29	9 8 9 7	26.90 22.91 26.09 18.71	+ 68.8 62.4 75.9 58.1	11 10 12 12	30.31 29.07 35.04 34.34	50.0 48.0 45.7 44.0
Mar. 19-20	29	+ .111	$^{+}_{+}$ 5.47 $^{+}$ 19.64	58 1.93	3.187 wt.	14.17 	July 28-28	$\frac{9}{42}$	24.58	82.5	56 2.40	31.02	- 33.3 - 3.95
May 9 10 12 16 18 29	10 2 10 10	29.72 5.64 29.84	$egin{array}{cccccccccccccccccccccccccccccccccccc$	9 9 8 6	26.79 26.60 24.22 19.16	-115.4 $-113.7$ $-91.2$ $-59.1$	Aug. 7 10 12 13 15	9 9	25.57 26.05 26.26 25.65	$+ 12.23 \\ + 97.7 \\ 103.4 \\ 107.4 \\ 112.9$	8 12 12 11	24.26 33.62 35.16	$ \begin{array}{cccc}  & 1.9 \\  & 7.5 \\  & + & 1.8 \\  & + & 7.8 \end{array} $
22 23 May 17–16	10 10  52	28.08	$   \begin{array}{c}     + 12.3 \\     + 15.3 \\     \hline     + 0.04   \end{array} $	9 9 	28.39 28.63 	- 89.8 - 87.5 - 11.13	18 19	8	25.50 23.30	118.5 105.9	5 11	13,99 30.58	+ 17.5 + 21.2
II-III	· ·	— .159	+ 11.17		wt.	- 11.15	Aug. 13-13	บฮ	$+\frac{2.874}{.030}$	$\begin{array}{c c} + & 12.18 \\ + & 11.52 \end{array}$	2.79	wt.	+ 0.66

In combining the foregoing expressions to form the final equation the weights are given by the formula

$$p = \frac{nn'}{10(n+n')}.$$

The two series of values for I-II, II-III, and III-IV have been combined by weights in the final expressions given below.\*

			$\Delta \phi$	κ	Wt.			$\Delta \phi$	κ	Wt.
1894.	Feb. 6 26 Mar. 14	I—II	$^{+.044}_{+.030}_{+.063}$	$^{+19.57}_{\ 20.98}_{\ 20.22}$	1 96 1.84 1.80	1895. Jan. 30 Mar. 20	I—II	+.142 +.111	+18.77 $19.64$	1.36 1.93
	Mean		+.0455	+20.24	5.60	Mean		+.1238	+19 28	3.29
	May 10 26 June 16 July 2	II—III	188 017 018 050	$\begin{array}{c} +10.37\\ 11.53\\ 11.17\\ 9.82\end{array}$	1.66 0.90 2.47 1.07	May 17 29 June 9 25	II—III	159 073 147 274	$\begin{array}{c} +11.17\\ 11.43\\ 11.57\\ 10.89\end{array}$	2.55 1.42 1.87 0.56
	Mean		0697	+10.77	6.10	Mean		1465	+11.32	6.40
-	July 17 Aug. 7 24 Sep. 13	. III—IV	+.071  +.099  +.099 045	$\begin{array}{c} +11.69\\ 12.23\\ 11.30\\ 9.24 \end{array}$	2.86 2.04 2.47 1.48	July 15 28 Aug. 13	III—IV	$+.074 \\015 \\ +.030$	$\begin{array}{c c} +11.46 \\ 12.23 \\ 11.52 \end{array}$	2.39 2.40 2.79
	Mean		+.0659	+11.30	8.85	Mean		+.0296	+11.73	7.58
	Oct. 15 Nov. 5 20 Dec. 4	IV—I	224 261 387 312	$\begin{array}{r} +18.87 \\ 19.67 \\ 18.56 \\ 17.03 \end{array}$	3.24 3.03 2.42 2.05					
	Mean		2880	+18.67	10.74					

Adopting this value of the constant of aberration as that best suited to present purposes, the necessary correction to the latitude is found by multiplying the computed reduction for aberration by the factor .004473.

After applying these corrections to the latitudes we are prepared to form the condition equations for adjusting the declination systems of the different groups in order to free the results from systematic differences.

First series, 20".5277 Second " 20 .5393.

<sup>\*</sup>If we reduce these as two separate series, the term IV-I appearing in both, we find for the constant of aberration—

## The Latitude.

Assembling the corrected latitudes in groups covering convenient periods, which in the present case have an average duration of about sixteen days, we have the results given below. As before  $p = \frac{nn'}{10(n+n')}$ .

					I	No.	11	No.	III	No.	IV	No.		Δφ	p	$\frac{1}{p}$
1894.	Feb.	19-Fe 19-Ma 4-Ma	ar.	3	3.201 3.235 3.322	100 46 71	3.140 3.141 3.137	31 34 40	11		11		II—I	061 094 185	2.37 1.95 2.56	
	Apl.	19-A <sub>1</sub>	pl.	30			3.117 3.104	49 51						1165		.1453
	May	8-M 26-Ju 17-Ju	иe	15			2.930 2.961 2.908	43 80 59	3.060 2.944 2.934	29 42 43			III—II <sub>3</sub> v <sub>2</sub>	$+.130 \\017 \\ +.026$	1.73 2.75 2.49	
	July	9-Ju	ıl v	95					3.037	59			IV—III	+.0348 098	6.97 3.02	.1435
	Aug.	5-A1 23-Se	uğ.	22					2.968 2.991	61 60	2.939 2.803 2.941	62 71 70	4 <sup>v</sup> 3	165 050	3.28 3.23	
														1048	9.53	.1049
	Nov.	2-Oc 27-No 15-No 28-Do	ov. ov.	12 27	3.218 3.269 3.342 3.328	57 66 37 39					3.067 3.106 3.082 3.107	110 66 94 66	I—IV 1 <sup>v</sup> 4	+.151  +.163  +.260  +.221	3.75 3.30 2.65 2.45	
1894-1	Dec.	23–Ja 11–Ja		4 24	3,339 3,319	58 57								+.1921	12.15	.0823
		27-Fe	eb.	2	3.427 3.391	32 72	3.201 3.063	25 68					II—I 2011	—.226 —.328	1.40 3.50	
	Apl.	10-A	pl.	19			3.217	53						2989	4.90	.2041
		20-M 9-M	ay	6			$\frac{3.099}{2.970}$	59 91	3.042	77			$\overset{\mathrm{III}}{\overset{\mathtt{s}^{v'_2}}{}}$	$+.072 \\ +.109$	4.17 2.67	
	June	<b>7</b> –Ju	ınc	90										+.0864	6.84	.1462
	June July Aug.	9–Ju	ıly	31			2.944	68	3.053 2.919 2.917	103 78	2.842 2.847	110 59	IV—III 4v′3	077 070	5.08 3.36	
														0742	8.44	,1185

If we represent by  $_2v_1$ ,  $_3v_2$  . . . . the required corrections to the observed differences (II-I), (III-II) . . . . the following conditions must be satisfied:

Employing the weights given in the table preceding and solving our equations by the method of correlates, we find the following normal equations:

$$\begin{array}{l} .4760\,k + .1453\,k' + .1435\,k'' + .1049\,k''' = + .0056 \\ .1453\,k + .3494\,k' & = + .1824 \\ .1435\,k & + .2897\,k'' & = - .0516 \\ .1049\,k & + .2234\,k''' = - .0306 \end{array}$$

From which

Also

Therefore for the corrected differences

$$II-I=-.1836$$
 $III-II=+.0678$ 
 $IV-III=-.0847$ 
 $I-IV=+.2005$ 

The algebraic sum should, of course, be zero.

From these relations

$$I = II + .1836$$
  
=  $III + .1158$   
=  $IV + .2005$ 

Subtracting 0.1250 from each side of our equations in order to make the sum of the corrections zero, we obtain the following values, which must be applied to the latitudes derived from the respective groups in order to reduce all to a homogeneous system:

Applying these corrections to the values of the latitudes given on page 150, we obtain the final results, as follows:

Ţ	Veighted	Mean Date.	1	No.	1I	No.	III	No.	IV	No.	Mean φ
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 22 23 24 25	1894	Feb. 4 Feb. 25 Mar. 13 Apl. 9 Apl. 25 May 10 June 6 June 25 July 16 Aug. 13 Sep. 5 Oct. 14 Nov. 21 Dec. 4 Dec. 29 Jan. 18 Jan. 31 Mar. 17 Apl. 15 Apl. 27 May 20 June 13 July 21 Aug. 12	3.076 3.110 3.197 3.093 3.144 3.217 3.203 3.214 3.194 3.302 3.266	100 46 71 57 66 37 39 58 57 32 72	3.199 3.200 3.196 3.176 3.163 2.989 3.020 2.967 3.260 3.122 3.276 3.158 3.029 3.003	31 34 40 49 51 43 80 59 25 68 53 59 91 68	3.051 2.935 2.925 3.028 2.959 2.982 3.033 3.044 2.910 2.908	29 42 43 59 61 60 77 44 103 78	3.014 2.878 3.016 3.142 3.181 3.157 3.182 2.917 2.922	62 71 70 110 66 94 66	3.137 3.155 3.196 3.176 3.163 3.020 2.977 2.946 3.021 2.918 2.999 3.117 3.162 3.187 3.192 3.214 3.194 3.276 3.159 3.031 3.024 2.914 2.915
				635		751		596		708	

Final Values of Latitude—All Corrections Applied.

The folded sheet which follows gives the individual values of the seconds of latitude, all corrections and reductions having been applied.

The probable error of a single determination has been derived from these final values, and therefore includes that part due to the adjusted declinations as well as that of observation.

The results are as follows:

For Group	1	r = 0''.218  from	335 resid	uals
-	$\mathbf{II}$	.212	751	
	III	.189	596	
	IV	.193	<b>'08</b>	
Mean		r=.0".208	890 = w1	ole number of latitude determinations.

							I									1	Œ									ш		
		1721	1862	1928	1970	2045	2139	2187	2301	2365	2439	4694	4728	4825	4874	4926	4974	5072	5147	6210	1229	5941	6122	6193	6232	6373	6476	6534
100	4	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7
22	19. 25. 27. 28. 30.	3.11 3.64 2.87	3.45 2.69	3 81 2.67 3.40 3.31 2.90	3.12 3.23 2.85 3.64 2.63	3.67 2.52 3.32 3.08 2.21	2.79 2.21 2.98 2.63 2.47	3.50 2.56 3.33 2.83 2.65	3.01	3.01 2.64 3.54 3.20	2.89 3.40	2.97	3.62	2.40	3.03	3.12	2.33	2.99	4.17									
Feb.	31. 1. 4. 5. 6.	3.25 2.48 2.93	3.41 3.70 2.29	3.11	3.72 2.92	3.35 2.96	3.27 3.40 3.85	3.14 3.83 3.15 3.25	2.19 3.17	3.24 3.84 3.01 3.58	3.50 3.18	2.76		3.27 2.32	3.53	3.67	2.70	3.74	3.43		3.20							
1	L5.	3.16	3.43	3.24	2.97	2.99	2.66 2.68	3.01 [3.96]	2.68	3.17		1		3.22	4.30	3.62	2.89	3.22	3.11		3.41							
2	19. 20. 23. 24.	2.89 2.79 2.92	3.29 2.52 2.87 3.07	2.82 2.72 3.08 2.64	3.19 2.73 2.93	2.19 3.42	3.27 2.86	2.98 2.65	2.82 2.43	3 52 2.93	3.22 2.57	2.93	2.93 2.25 3.48	2.30 3.02 3.26	3.32 3.52 2.69	2.83	3.21	2.71 3.45 3.69			2.74 3.37 3.73							
Mar.		3.97 3.51			3.63 3.41		3.21 3.22	3.45 3.22		3.60 3.38		İ		3.12	2.76				3.20		3.06							
1	8.	3.09 3.08 3.06 3.09	2.82 3.42 3.32 3.39	3.36 3.56 3.61 3.49	3.20 3.69 3.28	2.80 3.79 3.06 2.99	3.57 3.34 2.62 3.39	2.80 3.41 3.19	3.46 3.66 2.91 3.04	3.64 3.43 3.29	3.44 3.12 3.08 3.44		2.90 2.91	3.29 3.59	3.19	3.39		2.88		2.93	3.51							_
]	13. 14. 16. 17. 18.	3.05	3.24	3.24 2.94 3.37 3.11	3.38 2.62 3.04 2.65	2.64 3.87 3.22 3.25	2.89 2.74 3.03 2.89	3.21 3.33 3.17 3.26	3.25 2.51 3.25 3.24	3.26 3.23 3.15 3.47	$2.73 \\ 3.45$	3.27	2.89 3.65 3.28	3.34 2.84 3.71	3.16 3.28	3.34 3.20	3.09	2.71	3.29	3.05	3.50							
April												3.58	[4.04]	4.06						0.40	2.45							
]	7. l3. l4. l5.			· · · · · · · · · · · · · · · · · · ·			····					3.58 3.39 2.85	3.71 3.26	[1.72] 3.36 3.02 3.22	3.48 3.23	3.24 3.39 3.31 3.35	3.12 4.01	2.21 3.76 2.76 3.38	3.12	2.40 3.10 3.40 2.82	$3.24 \\ 3.24$							
2	16. 22. 24. 25. 26.											2.81 3.39 3.49	3.47 3.12 3.49 2.93 3.64	3.15 2.94 3.14 2.69 3.51 2.82	3.10 3.09 2.95 3.20 2.87	3.23 3.20 2.62 3.32 3.19	2.79 3.46 2.91	3.55	2.56 3.47 3.41	3.05 2.85	3.10							
1	8. 9. 10. 12.											2.77	2.80 3.49 2.96 3.03 3.40	3.13 2.60 3.10 2.81 3.20	3.21	3.11 2.77 2.70 2.87 3.02	2.21	2.84 2.89 3.60 3.23	3.17	3.09 3.05 2.69 2.72	3.10 2.57	3.13	3.03 3.29	3.36 2 68 3.24 2.60	2.90	2.89 2.96 3.02		3.
June <sup>2</sup>	4. 8.											2.90 2.78 3.05	2.71		2.74 2.74 3.04 3.06	3.40	3.10 2.80 2.37 2.73	2.89 3.15	3.40	3.69	3.01			2.79 2.28		2.71 3.12		
1 1 1	9. 10. 12.											3.33 3.25	3.12 2.89	3.08 2.81	3.04		2.90		3.39	3.64	2.72 3.02 3.39 3.33	3.05			2.97 2.60			
1	.5. .7.											3.26 2.76	2.89	2.99	2.51 2.88	3.14 2.80		3.31 2.73	3.68 2.67	3.00	3.33	3.18	<b>3.20</b>	2.83				
1 2 2 2 2 2	18. 20. 22. 27. 28.											3.06	2.64 3.60	3.24 3.08 3.11 2.94 3.21	2.75 3.07 3.12 3.12	3.05 2.43 2.71 3.16	2.67 2.94 8.03 2.96	3.26 2.96 3.19 2.94	3.22 3.08 3.30		3.21 2.80 2.91 2.75	3.19 2.93 3.06	2.75 2.95	2.76 2.55 2.94	2.54 2.89 2.61	2.83	2.71 3.30 3.05	2.
July 	3. 5. 9.		******				·							2.49 2.97	2.76 2.87	2.95 2.94	2.82 2.70	3.24 2.75	2.81 3.19		3.17 2.92	2.96	2.85 3.09	2.33 3.08	3.46 2.16	3.32	3.24	2.
1	.0. 1.																					2.73 3.34	3.16	2.57	2.71	2.31	2.69	2.
1 1 2	2. 3. 17. 24.																					3.44 3.30 3.56	2.98 2.86 3.21 [5.04] 3.79	2.83	3.37 2.77 3.04	$2.87 \\ 2.66$	3.01 2.88 3.28 3.33	2. 3.
1 2 2	5. 6. 9. 10. 20. 21.											One of the Second								-		2.58 2.56 3.01	3.38 2.59 2.81 2.51 2.65 2.42 2.41	3.07 3.22 3.07 3.64 2.95 3.58 2.70	3.37	3.21 2.86 2.83 3.00 2.79 3.07 3.30	2.89 2.67 2.75 2.91 2.67 2.98 3.07	3. 2. 2. 3. 3.
2 2 2 8ept.	23. 24. 31. 7. 11.							ar and Parlamental American	ALCO MANAGEMENT								Trabulli satronia	100 to an arrangement				2.83 2.68 2.81 3.08 3.05	3.12 2.75 2.90 2.82 2.52 3.27	3.35 2 67 3.13 2.76 3 30 2.91	3.30 3.28 2.79 3.12 2.57	2.82 3.57 2.97 2.97 3.09	2.60 3.09 3.08 2.99 3.09 3 14	2. 2. 3. 2. 2.
Oct.	1.	2.98 3.48		3.10 2.25		3.43 3.04	2.90 3.45	3.41 2.87	3.16 3.37	3.27	3.20												2.92	2.86	2.84	3.17	2.69	2
1 1 1 1	5. 6. 7. 8.	3 <b>.4</b> 9	2.65 3.17	3.44 3.11 3.05 2.71	2.81 3.23 2.58 3.29	3.26 3.18 3.61 2.63	3.06 3.13 3.26 3.33	3.34 2.81 2.96 2.38	2.56 3.52 3.01 3.81	3.38 3.34 3.09 2.72	3.18 2.78 3.77 3.31																	

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4825	4874	1956	4974 E	2072	5147	9210	6271	5941	6122	6193	6232	111 832 832	6476	6534	6233	1699	7509	1991	2444	0944	1820	7915 I.	V  2962	8024	8078	8195	8252	8317
3	4			بت 	8	9	10	1	9 2	 3	4	 5	 6	φ 	ъ  8	 9	1	2	29.7	4		6	7	 8	æ 	∞ 10		
	3.03	3.12				•	10	_	~	ņ	*	J	Ů	•	•	•		æ	3	*	5	v	4	•	U	10	11	12
3.27 2.32	3.53	3.67	2.70	3.74	3.43		3.20																					
3.22	4.30	3.62	2.89	3.22	3.11		3.41							-									_		******			
.02 .26	3.52 2.69	3.06 2.83 3.87	3.21	3.45 3.69	2.66		2.74 3.37 3.73																					
	2.76 3.19	3.14	3.21		3.20		3.06																					
			3.09	2.71	3.29	2.93 3.05 3.17	3.50																					
1.06	2.67	3.25	2.15	3.66	3.34	*****	2.45								***************************************									-				
3.36 3 02	3.48 3.23	3.39 3.31	3.12 4.01	3.76 2.76	$\frac{3.12}{2.75}$	2.40 3.10 3.40 2.82	$3.24 \\ 3.24$															* 1	an faralless			and the second second		
3.14 2.69 3.51	3.09 2.95 3.20	3.20 2.62 3.32	2.79 3.46 2.91	3.55 2.60 3.38	2.56 3.47 3.41	2.83 2.60 3.05 2.85 3.31	3.10 3.37 3.20																					
3.13 2.60 3.10 2.81	3.05 2.64 3.21	3.11 2.77 2.70 2.87	3.39 2.21	2.84 2.89 3.60	3.04 3.17 3.73	3.09 3.05 2.69 2.72	2.95 <b>3.1</b> 0 2.57	3.13	3.03 3.29	2 68 3.24	2.90	2.96	3.00	2.98 3.05 2.61	3.01	3.43									management of the State of			
2.89 2.92 2.89	3.08 2.74 2.74		3.10 2.80		3.06	3.01 3.06	2.89 3.01							2.78 2.57											-			
.91 .88 .08	$\frac{3.06}{2.32}$	$\frac{3.40}{2.82}$	$\frac{2.73}{3.00}$	3.44	2.66		2.72 3.02	2.99 3.05	3.41	2.94	2.97	3.15	3.01	2.99	2.73	2.86												
2.81 2.98 2.98	3.09 2.51	2.73 3.14	3.47 3.01	2.79 3.31	2.96 3.68	[1.66] 3.00	3.39 3.33	2.87 3.18	2.96 3.20	2.53 2.83	2.60 3.26	3.23 2.46	3.14	3.14	2.69	2.46												
2.99 3.24 3.08		2.80 3.05	2.94 2.67		2.67		3.51 3.21	3.25 3.19	3.44	2.39 2.76	3.42 2.54	2.91		[3.72] 2.97		3.28 2.77												
3.11 2.94 3.21 2.49 2.97	3.07 3.12 3.12 2.76 2.87	2.43 2.71 3.16 2.95 2.94	2.94 3.03 2.96 2.82	2.96 3.19 2.94	3.22 3.08 3.30 2.81 3.19		2.80 2.91 2.75 3.17 2.92	2.93 3.06 2.96	2.75	2.55 2.94 2.33	2.89 2.61 3.46 2.16		3.30	3.02	2.99	3.06 2.98												
	2.01	#+VZ	2.10		~			2.96		2.94	3.11 2.71		3.24	3.10	3.08	3.41	2.92	3.12	2.70	3.05	3.35	3.07	2.78	2.94	2.29	3.14	4 3.05	2.62
								3.34 2.94 3.44 3.30 3.56	2.98 2.86 3.21 [5.04]	3.10 2.77 2.83 2.77	2.60 3.37 2.77 3.04	2.59 2.87 2.66 3.40	3.01 2.88 3.28	2.72 2.98 3.06 2.99	$\frac{3.28}{3.07}$	3.24 2.83 3.38	3.03 2.83 3.25	3.25 2.54 2.97 3.07	2.98 2.62	2.82 3.19 3.11 3.16	2.92 2.76 3.26	2.95	2.99 2.94	3.35	2.95 3.30	3.07	9 2.30 7 3.07 0 2.31	3.07 3.83
Alleria Principalis								2.40 2.58 2.56 3.01	2.59 2.81 2.51 2.65	3.64 2.95		3.21 2.86 2.83 3.00 2.79	3.33 2.89 2.67 2.75 2.91 2.67	3.06 2.49 2.93 2.99 3.24	3.13 2.98 3.31 3.14 3.35	2.73 2.43 3.09 2.92 3.34 2.66	3.31 2.80 3.33 3.11	2 95	3.21 2.83 2.88 3.01 3.12	3.04 2.95 2.71 2.69	2.92 3 33 2.63 2.71 2.65 3.18	2.88 3.12 2.59 2.93	2.94 3 12 2.97 2.62 2.72 2.99	3.02 2.92 2.59 2.29	3.73 3.18 2.73 2.45 3.02 2.96	3.02 2.54 2.56 3.15	3 [1.87 2 3.42 4 3.00 5 2.70 5 2.98 5 3.48	2.75 2.39 2.63 2.70
								3.21	2.42 2.41	2.70	3.60		2.98 3.07	2.98	3.29	3 29	2.89	3.20	2.89	2.89	3.04	3.16	2.97	2.94	2.75	2.78	3 2.97	3.37
								2.68 2.81 3.08 3.05	2.90 2.82 2.52	2 67 3.13 2.76 3 30	3.30 3.28 2.79 3.12	3.57 2.97 2.97	2.60 3.09 3.08 2.99 3.09	2.97 2.78 3.23 2.89 2.89	3.47 3.37 3.17 3.30 2.84	2.99 2.77 2.97 2.69	3.32 3.25	2 99 2.93 3.11 3 07	2.84 3.10 3.19	3.01	2.90 2.70 2.53 3.06	2.98 3.05 2.57 2.76	3.31 2.97	3 18 3.09 3.74	2.62 3.07 2.93 2.98	3.01 2.96 3.22	1 2 91 6 3.27 2 2.93	2.78 2.77 2.60 3.06
								3.04	3.27	2.91	2.57		3 14	2.90 2.74	3.34	3.32	2.81 3.06	2.64 3.14	2.86 3.02	3.14 3.35	2.92 2.88	2.98 3.18	2 94 2.71	3.36 3.31	2.76 3.28	2.86	6 2.96 7 2.87	3.23 3 19
																	2 89 3.54	2.74 3.21 3.01 3.26 3.01	3.10 2.97 3.72 3.11 3.71	3.39	3.16 2.94 3.62 3.16 3.45	2.85 3.17 3.12 3.19	3.03 3.38 3.38	3.16 2.91 3.15	3.57 3.15 2.71 2.87	3.60 2.81	3.25 2.98 1 3.50 9 3.27	3.60 3.03
_																	3.25 2.90 3.13	3.12 3.18 3.41 3.00	2 63 2.85	2 83 2.56 2.97 2.83 3.17	2.69 3.91 2.93 3.46	3.34 2.88 3.49 2.72	3.02 2.97 2.95 3.57	3.44 3.02	$\frac{3.60}{3.42}$	2.82 2.77 2.88	2.98	3.52 2.78

Nov.
19. 27. 31. 2. 3. 4. 6. 10. 11. 12. 15. 16. 19. 20. 21. 22.
3.32 3.57 3.32 2.83 3.12 3.47 3.28 2.39
3 29 3.51 3.28 [4.30] 3.42
2.88 3.50 2.89 3.01 2.84 3.40 3.07 3.69
3 26 3.08 3.12 2.45 3.27 3.25 3.35 2.69
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3.18 3.50 3.23 3.24 2.69 3.48 3.45 3.64 3.73
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2.89 2.92 2.89	$2.74 \\ 2.74$	3.37 2.81 2.71	3.10 2.80		3.06	3.01 3.06	2.89 3.01	3.02 3.25	3.26 3.28	2.79 2.28	2.67 8.85		2.72 3.26	2.78 2.57	2.21 2.66	3.16 3.53						Acquir Victoria							
2.45 2.91 2.88 3.08	3.04 3.06 2.32 3.04	2.85 3.40 2.82 2.83	2.37 2.73 3.00 2.90	3.44	3.40 2.66 3.39	3.69 3.64	2.72 3.02	2.99 3.05	3.41	2.94	2.97	<b>3.1</b> 5	3.01	2.99	2.73	2.86													
2.81 2.98 2.98	3.09 2.51	2.73 3.14	3.47 3.01	2.79 3.31	2.96 3.68	[1.66] 3.00	3.39 3.33	2.87 3.18	2.96 3.20	2.53 2.83	2.60 3.26		3.14	3.14	2.69	2.46													
2.99 8,24 3.08	2.88 2.75		2.94 2.67		2.67		3.51 3.21	3.25	3.44	2.39	3.42 2.54	2.91	3.15 2.71	[3.72]	2.92 2.73														
3.11 2.94 3.21	3.07 3.12 3.12	2.43 2.71 3.16	2.94 3.03	2.96 3.19 2.94	3.22 3.08 3.30		2.80 2.91 2.75	2.93 3.06		2.55 2.94	2.89	2.83	3.30 3.05	3.02	2.99 2.85	3.06 2.98													
2.49	2.76	2.95 2.94	2.82	3.24	2.81		3.17 2.92	2.96		2.33	3.46 2.16	2.94		2.47		3.29													
								2.73 3.34	3.16	2.57	2.71	2.31		3.10				3.12							2.29		3.05		
								3.30 3.56	2.86 3.21 [5.04]	3.10 2.77 2.83 2.77	2.60 3.37 2.77 3.04		2.69 3.01 2.88 3.28	2.72 2.98 3.06 2.99	3.10 2.24 3.28 3.07	3.24 2.83 3.38	2 68 3.03 2.83 3.25	2.54 2.97 3.07	2.41 2.98 2.62	3.19 3.11 3.16	3.26	2.95	2.99 2.94	3.08 2.91 3.35	3.30	3.07 3.70	2.30 3.07 2.31	3.07 3.83	
								2.40 2.58	3.79 3.38 2.59	3.07 3.22	2.73 2.67	3.29 3.21 2.86	3.33 2.89 2.67	3.68 3.06 2.49	2.79 3.13 2.98	3.52 2.73 2.43	3.06	3.00	3.21	3.04	3 33	2.88	3 12	3.02	3.18	3.02	3.42	2 75	
								2.56 3.01 2.71	2.81	3.07 3.64 2.95 3.58	3.41 3.37 2.51	2.83 3.00 2.79 3.07	2.75 2.91 2.67 2.98	2.93 2.99 3.24 3.46	3.31 3.14 3.35 2.94	3.09 2.92 3.34 2.66	2.80 3.33 3.11 2.78	2 95 2.32 2.76 2.59	2.83 2.88 3.01 3.12	2.69	2.63 2.71 2.65 3.18	3.12 2.59 2.93	2.97 2.62 2.72 2.99	2.92 2.59 2.29 2.89	$\frac{245}{3.02}$	$\frac{2.56}{3.15}$	3.00 2.70 2.98 3.48	$\frac{2.63}{2.70}$	
			-	A. 1- E (T) WARRING	-			3.21	3.12	2.70	3.60	3.30	2.60	2.98	3.29	3 29 2.65	2.89	3.20		2.89 3.26	3.04 2.90	3.16 2.98					2.97		
								2.68 2.81 3.08	2.75 2.90 2.82	2 67 3.13 2.76 3 30	3.28 2.79	3.57 2.97 2.97	3.09 3.08 2.99 3.09	2.78 3.23 2.89 2.89	3.37 3.17 3.30 2.84	2.99 2.77 2.97 2.69	3.32 3.25	2.93		3.45	2.70 2.53	3.05 2.57	2.90 3.14 3.31 2.97	3 18	3.07 2.93	2.96	2 91 3.27 2.93	2.60	
		-					-	3.04	3.27	2.91	2.57 2.84		3 14	2.90	3.34	3.32	2.81 3.06 3.26	2.64	2.86 3.02	3.14	2.92 2.88 3.16	2.98	2 94 2.71	3.36	2.76 3.28	2.86 2.97	2.96	3.23 3 19	
																	2.89 2.89 3.54	3.21 3.01 3.26	2.97 3.72 3.11	2.94 3.49 3.39	2.94 3.62 3.16	3.17	3.03 3.38		3.15	3.60		3.60	
																	3.23 3.25 2.90	3.01 3.12 3.18	3.71 2 63 2.85	2 83 2.56 2.97	3.45 2.69 3.91	3.34	3.38 3.02 2.97	2.88 3.44		$\frac{2.82}{2.77}$	3.27 2.98 3.46	3.52	
																	3.13 3.19 3.54	3.41 3.00 3.18	2.95 3 36 2.96	2.83 3.17 3.08	2.93 3.46 3.15	3.49 2.72 3.31	2.95 3.57 3.23	3 02 3.67 2.48	2.98	3.42	3.40 3.39 2.98	3.18	
																	3.21		3.51		3.37	2.90			3.03		3.65		
																	2.91 2.70		2.95	3.20 3 00	3.05	2.79	3.25 3.05		3.09				
																		3.38							3.61				
																	3.16		2.88	3.13	3.43	3.93	3.24 3.04	3.27	3.72	3.83		3.40	
																	3.12 2.93 2.87 3.45	2.87 3.39	3.42 3.15 3.47 2.89	2.78	3.14 2.80 2.82 3.53	3.43	3.13	3.08 2.74 2.59 3.30	3.03 3.19	3.53 2.18 3.83	2.68 3.09	3.88 3.13 3.67	
																		2.90 3.22		3.30	3.03	2.23	3.02	2.82	2.92	3.29	3.35	2.95	
				*****					-								2.61	3.40 3.11 2.69	2.94	2.61	2.63 [5.38]	2.70	3.50 2.56 3.51	2.56	3.88	2.75	3.47 3.16	3.42	
																	2.71	3.68 2.89	3.37 3.55 3.22	3.37	3.27 3.19 2.88	3.17 3.28 3.04	3.55 3.30 3.35	3.34 3.36 3.11	3.55 3.34 3.41	3.68 3.25 3.69	3.11 3.44 2.93	3.27 3.11 3.10	
																				2.85									
																												-	
		3.80				9 60																							
3.65 3.03		3.27	3.77	2.39	2.86	2.50	[4.58]																	- The section of					
0 F1	9 21	9 50	9.40	9 10	9 00	0.00	9 10																						
2.95		2.79		2.84		2.99 3.37 3.17																							
3.04 2.58	2.91	2.96 3.16	$\frac{2}{2.72}$	3.04 3.40	2.87 3.00	2.82 3.21	3.18 3.41																						
2.85 2.82	3.73 2.43	$\frac{3.41}{2.58}$	3.11 2.68	3.03 3.17	$\frac{3.26}{2.75}$	3.26 3.05	$\frac{2.79}{2.97}$																						

								1.						
Aug	July		June	May	Apl.		Mar.	Feb.						
. 3. 5. 7. 8. 10. 12. 13. 15. 18.	10. 12. 16. 18. 19. 25. 26. 29. 30. 31.	11. 14. 16. 23. 25. 28. 29.	10. 12. 13. 16. 18. 22. 23. 28. 29.	20. 21. 23. 1. 3. 6.	10. 11. 14. 15. 18. 19.	18. 19. 21. 22. 23. 25. 28.	5. 9. 10. 14. 16.		11. 14. 16. 19. 23. 24.		28. 29. 3. 4. 5.	21. 22. 24. 26. 27.	15. 16. 19. 20.	6. 10. 11. 12.
							3.30 3.54 2.71 3.23 2.98	2.78 3.00 3.34 3.24	3.04 3.18 3.00 3.23 3.74	3.00	3.44 3.46 2.92		2.39	2.83 3.12 3.47
							3.54 3.44 3.08 3.09 3.93	3.58 3.37 3.69	3.38 3.21 3.17 3.03 3.88 3.45	3.18 3 96	3.01 3.40 3.03 3.43	3.77 3.42	[4.30] 3.42 3.22	3 29 3.51 3.28
							3.44 3.05 3.79 3.33 2.71 3.23	3.35 3.30 3.37	3.32 2.87 2.72 3.95 3 14	3.28 3.47 [4.73] 2.85 3.28 2.96	3.49 2.73 3.18 2.96		3 69	2.84
-						3.23 3.15	3.26 3.09 2.88 2.18 3.17	3.21	$\frac{3.05}{2.94}$	$\frac{3.72}{3.57}$	2.97 3.55 2.58 3.75	2.45	3.35 2.69 3.23	2.45 3.27 3.25
			- march district			[2.28] 3.00 3.25	3.62 3.46 2.78		3.23 2.71 3.44 2.90 3.56 2.98	2.93 2.75 3.65 3.19 4.01 3.64	3.65 3.10 3.26 3.22		3.04 3.33 3.05	3.31 2.66 3.68
						3.30 2.85	3 31	3.11	3.05 3.21 3.55 3.37 3.38	2.88 2.93 2.83 3.42 3.41 3.73	2.84 3.22 3.06 3.17	2.97	3.20 2.75 3.40	3.12 3.15 3.08
						3 50	4.09 3.73 3.17		2.78 2.79 3.40 2.71 3.66 3.33	3.72 2.90 4.24 3.40 3.89 3.08	3.53 3 23 3.33 2.87	2.60		
						3.47 3.03	3.15 3.41	3.46	3.18 3.60 2.65 3.31 2.85 3.38	2.96 3.97 2.71 3.13 2.88 2.47	3.14 3.66 2.83 3.40	3.61	3.45 3.64 3.73	2.69 3.48
							2.98	3.12 2.66	3.26 2.92 3 34 3.92 3.42 3.00	2.57 3.83 3.04 2.66 2.24	3 07 2.81 3.17 3.07		3.33 3.14	
						3.05 3.32	3.03	3.36 3.26	$\frac{2.94}{3.18}$	3.72 2.77 3.53 3.29 3.24 2.73	3.29 3.51 3.34 3.34		3.47	
		3.21 2.77 3.26	2.83 3.10 3.84 3.02 3.11 2.49 2.95 2.67 3.43 3.33 3.02	3.13 3.05 3.33 3.42 3.62	3.03 3.53 3.41 3.19	2.60 3.66 3.17	3.38	2.29						
		2.82 3.03 2.94 2.98	2.93 2.48 2.16 3.35 2.91 3.32 3.29 3.21 3.02 2.87 2.88 3.44	2.99 3.41 3.23 2.52 2.92 3.07	3.45 3.62 3.34 3.13 3.52 2.85	3.42 3.19 3.91 2.91 2.68	3.39 3.60	3.57 3.40 3.45						
		3.12 2.93	2.99 3.42 3.23 2.30 3.20 3.48 2.82 3.24		3.07 3.28 3.25 3.67 3.56 3.97	3.04 2.58		3.65						
		3.50 3.20 3.04 3.25	2.92 2.76 3.25 2.89 3.08 3.43 3.06	3.60 3 12	3.23 3.03 3.68 2.80 3.52	3.73	3.44						-	
		2.94 3.13 3.17	3.39 2.96 3.06 3.08 2.68 2.98 2.64 2.64		2.99 3.13 3.78	3.16 3.41								
		3.02 3.29	3.45 3.20 3.17 2.54 2.87 3.20 3.07 3.00		2.99 3.43	2.72 3.11	3.48 3.09	3.93						
		3.00 2.90	3.46 3.15 2.75 3.16 2.71 3.55 3.08 3.30 2.57 2.87 3.03	2.81 2.42 3.67 3.25 2.83 2.59	3.23 3.60 3.64 3.36 3.17	3.40 3.04 3.40 3.03 3.17	2.84	2.76 2.93 2.39						
		3.32 3.38 2.61	2.89 3.28 3.32 2.53 2.95 3.23 2.70 2.81 3.10 3.22 3.46	2.53 3.15 3.44 2.91 3.07 3.29	3.06 2.66 3.43 3.22 3.42	3.24 2.87 3.00 3.26 2.75	3.03 3.56	3.49 2.72 2.86						
		3.20	2.94 2.92 3.20 3.11 2.60 3.61	3.15 3.04 3.65 3.08 2.97 3.27	2.90 2.96 3.69 2.93 3.27	3.17 2.82 3.21 3.26 3.05	2.99 3.37	3.68 2.50						
		2.83 3.37	2.71 2.96 2.68 2.85 3.05 3.29 2.95 3.23 3.02 2.55	2.92 2.94 2.80 2.86 3.20	3.30 3.18 3.07 2.64 3.16	2.91 3.18 3.41 2.79 2.97	3.13 3.30	[4.58]						
2.78	3.26 2.98 3.37 3.05 2.45 2.96 2.64 3.04 2.93 2.65 2.60		2.93 3.10 2.62 3.09 2.83 3.05 3.34 3.44	2.87					-					
3.01 3.05 3.07 3.24 2.74 3.00 2.63	3.03 2.74 2.75 2.41 3.01 3.05 2.64	2.94	3.29 3.47 3.05 3.15 3.08 3.24	3.22							maked took replacement			
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2.64 2.73 2.64 2.74 2.66 3.19 2.58 2.82 2.58	2.93 2.72 3.29 3.21 2.94 2.91 2.60 2.80 2.77	3.19		3.04							manata di manata di manata di manata di manata di manata di manata di manata di manata di manata di manata di m			
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2.91 2.87 3.31 2.96 2.43 2.60 3.03 3.35	2.92 2.53 3.07 3.05 3.01 2.90 3.13 3.10 2.85 2.89 3.02 3.17	3.09	2.95 2.29 2.95 3.52 2.95	3.05										

		3.19       8.13       3.28       3.49       3.30       3.00       3.24       3.34       3.03       3.36       3.20       3.12         3.16       3.20       2.88       3.13       3.43       3.93       3.04       3.27       3.72       3.83       2.55       3.40         3.12       3.41       3.42       3.13       3.43       3.93       3.04       3.27       3.72       3.83       2.55       3.40         3.12       3.41       3.42       3.13       3.24       3.08       2.96       2.96       3.85       3.05       3.03       3.88       2.96       2.96       3.53       3.03       3.88       2.87       2.74       3.36       3.53       3.53       3.03       3.88       2.87       2.74       3.36       3.53       3.01       3.88       2.88       3.13       3.59       3.83       3.09       3.67       3.78       2.90       3.47       3.06       3.43       3.01       3.29       3.55       3.83       3.09       3.67       3.47       3.22       3.30       3.03       3.22       3.02       2.82       2.99       3.29       3.35       2.95       3.44       3.11       3.47       3.24 <t< th=""></t<>
3.70 3.39 3.80 3.03 2.76 3.49 3.65 3.62 3.27 3.93 2.93 2.72 3.68 3.03 4.14 2.37 2.39 2.86 2.50 [4.58]		
3.51         3.51         3.58         3.48         3.12         3.03         2.99         3.13           2.95         3.44         2.79         3.09         2.84         3.56         3.37         3.30           3.65         3.35         3.58         3.40         3.24         3.17         2.91           3.04         2.91         2.96         2.66         3.04         2.87         2.82         3.18           2.58         3.16         2.72         3.40         3.00         3.21         3.41           2.82         2.43         2.58         2.68         3.17         2.75         3.05         2.79           3.07         3.23         3.36         3.46         3.23         3.06         2.90         3.30           3.25         3.68         3.13         3.43         3.64         3.43         3.69         3.07           3.67         3.28         3.78         3.53         3.36         3.22         2.92         2.92         3.90         3.60         2.66         2.96         3.18           3.57         3.38         3.70         3.02         2.81         2.53         3.1b         2.92           3.44 <td>2.87 3.22 3.03 3.04 2.72 3.10 3.05 2.65 2.51 2.93 3.01 2.58 3.21 3.06 2.63 2.95 2.51 3.15 3.06 3.47 3.27 3.13 3.55 2.99 3.09 3.05 3.48 3.46 3.10 2.72 2.95 3.37 2.70 2.83 3.15 2.82 3.02 3.14 3.13 3.52 3.51 3.04 3.05 3.05 3.08 3.37 3.13 2.73 2.84 2.95 2.34 2.80 3.34 3.24 3.00 3.32 3.27 2.90 3.08 2.93 3.07 3.14 3.23 3.35 2.95 3.30 3.15 2.82 3.33 2.95 3.30 2.93 2.92 3.00 3.17 2.78 2.93 2.81 2.89 2.85 3.44 2.87 3.40 3.18 3.25 3.16 3.46 3.32 3.14 2.62 3.19 2.50 3.18 2.97 2.69 3.12 3.01 2.58 3.16 3.05 3.08 3.26 2.94 3.69 3.19 2.74 2.49 3.09 2.73 3.35</td> <td></td>	2.87 3.22 3.03 3.04 2.72 3.10 3.05 2.65 2.51 2.93 3.01 2.58 3.21 3.06 2.63 2.95 2.51 3.15 3.06 3.47 3.27 3.13 3.55 2.99 3.09 3.05 3.48 3.46 3.10 2.72 2.95 3.37 2.70 2.83 3.15 2.82 3.02 3.14 3.13 3.52 3.51 3.04 3.05 3.05 3.08 3.37 3.13 2.73 2.84 2.95 2.34 2.80 3.34 3.24 3.00 3.32 3.27 2.90 3.08 2.93 3.07 3.14 3.23 3.35 2.95 3.30 3.15 2.82 3.33 2.95 3.30 2.93 2.92 3.00 3.17 2.78 2.93 2.81 2.89 2.85 3.44 2.87 3.40 3.18 3.25 3.16 3.46 3.32 3.14 2.62 3.19 2.50 3.18 2.97 2.69 3.12 3.01 2.58 3.16 3.05 3.08 3.26 2.94 3.69 3.19 2.74 2.49 3.09 2.73 3.35	
2.90 3.04 3.17 2.98 2.84 2.61 3.22 3.17 2.49 3.25 2.70 2.77 2.88	2.85 2.93 2.86 3.56 3.46 2.98 2.62 3.31 3.27  3.46 2.97 2.76 2.87 3.12 3.32 2.92 3.05 2.65 2.98 3.07 2.90 2.78 3.40 3.09 3.07 2.78 3.00 3.05 2.86 2.87 3.05 2.74 2.53 2.75 3.05 2.96 2.97 2.78 2.79 2.78 3.40 3.09 3.07 2.78 3.00 2.65 2.97 2.78 2.70 2.96 2.10 2.10 2.10 2.10 2.10 2.10 2.10 2.10	2.87     2.71     2.56     2.80     2.69     2.78     3.25     2.83     2.76     2.94     3.09       2.91     3.23     2.51     3.15     3.25     3.13     2.70     2.94     3.09     2.94       2.94     3.36     3.54     2.84     3.37     2.63     3.12     3.14     2.88     2.69     3.01     2.12       3.23     2.93     2.44     2.54     3.07     3.12     2.63     3.08     2.75     3.03     3.09     2.75       3.48     2.25     3.46     2.91     2.98     3.03     3.09     2.89     3.03     2.55     3.93     3.16     2.23     2.70       2.42     2.24     2.30     3.39     3.21     2.55     2.93     3.16     2.32     2.70       2.62     3.27     2.60     3.11     3.11     3.16     2.42     3.11     3.04     3.24     2.54     2.81     3.24       2.49     2.96     2.94     3.10     2.79     3.05     2.57     2.39     3.56       2.96     3.12     2.92     2.96     2.17     3.10     2.78     3.11     3.14     2.83     2.60       3.68     2.75     3.19     3.32
	2.91 3.24 2.96 2.66 2.92 2.62 2.96 3.30 2.86	

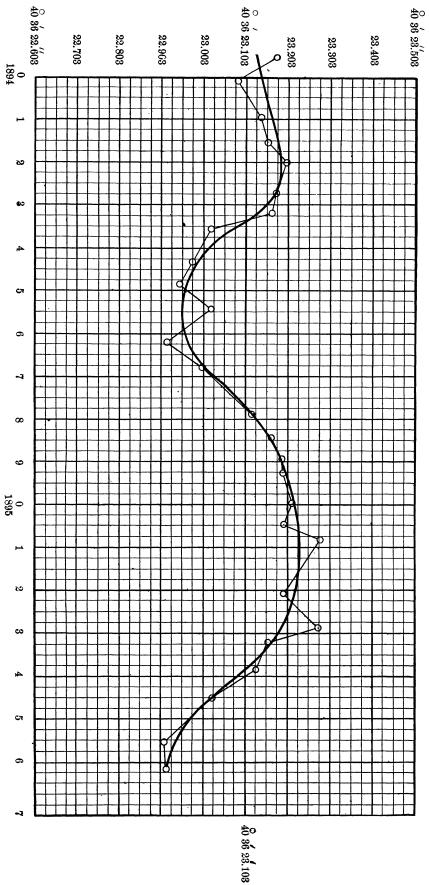


Diagram Showing Variation of Latitude at South Bethlehem from 1894, January 19, to 1895, August 19.